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Snibbe et al.

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(54) **METHODS AND DEVICES FOR TOUCH-BASED MEDIA CREATION**

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(73) Assignee: **EYEGROOVE, INC.**, San Francisco, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/608,099**

(22) Filed: **Jan. 28, 2015**

(65) **Prior Publication Data**

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(51) **Int. Cl.**
G06F 3/00 (2006.01)
G06F 3/0484 (2013.01)
(Continued)

(52) **U.S. Cl.**
CPC ***G06F 3/04842*** (2013.01); ***G06F 3/0488*** (2013.01); ***G06F 21/105*** (2013.01); ***H04L 67/10*** (2013.01)

(58) **Field of Classification Search**
CPC H04N 7/147
USPC 715/719, 756
See application file for complete search history.

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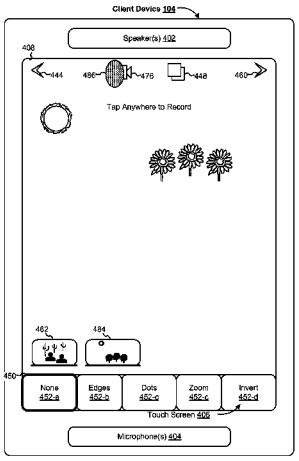
Primary Examiner — Omar Abdul-Ali
(74) *Attorney, Agent, or Firm* — Morgan, Lewis & Bockius LLP

(57) **ABSTRACT**

An electronic device with one or more processors and memory displays a first user interface including a plurality of audio tracks, detects a first user input selecting one of the plurality of audio tracks, and, in response to detecting the first user input, displays a second user interface for recording a video clip. The device also detects a second user input to initiate recording of the video clip and detects a third user input to stop recording of the video clip. The device further detects a fourth user input to publish the media item based on the video clip and the selected audio track and, in response to detecting the fourth user input, publishes the media item to a server, including sending to the server information identifying the selected audio track, the video clip, and information related to synchronization of the selected audio track and the video clip.

27 Claims, 38 Drawing Sheets



(51) **Int. Cl.**

G06F 3/0488	(2013.01)
G06F 21/10	(2013.01)
H04L 29/08	(2006.01)

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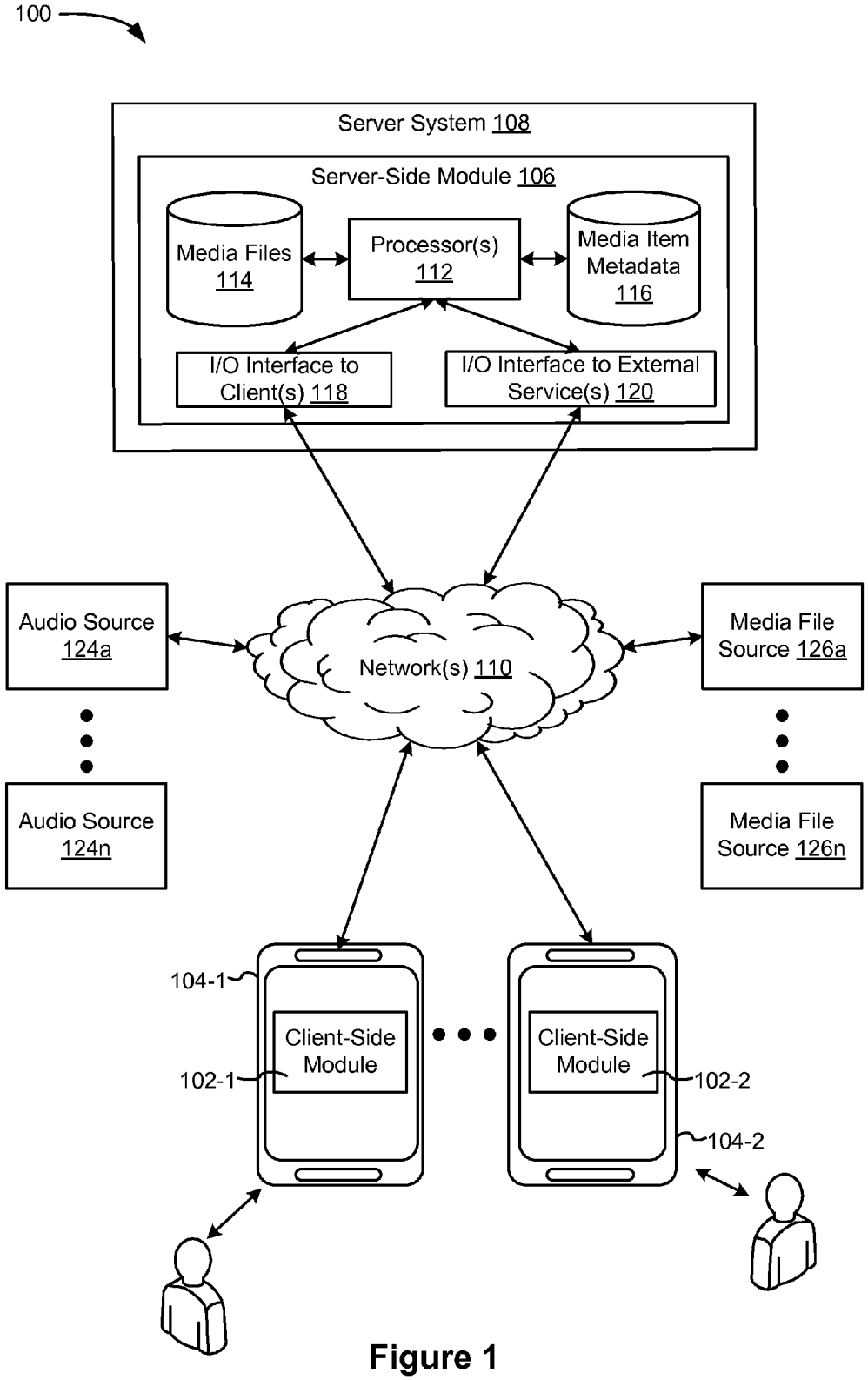
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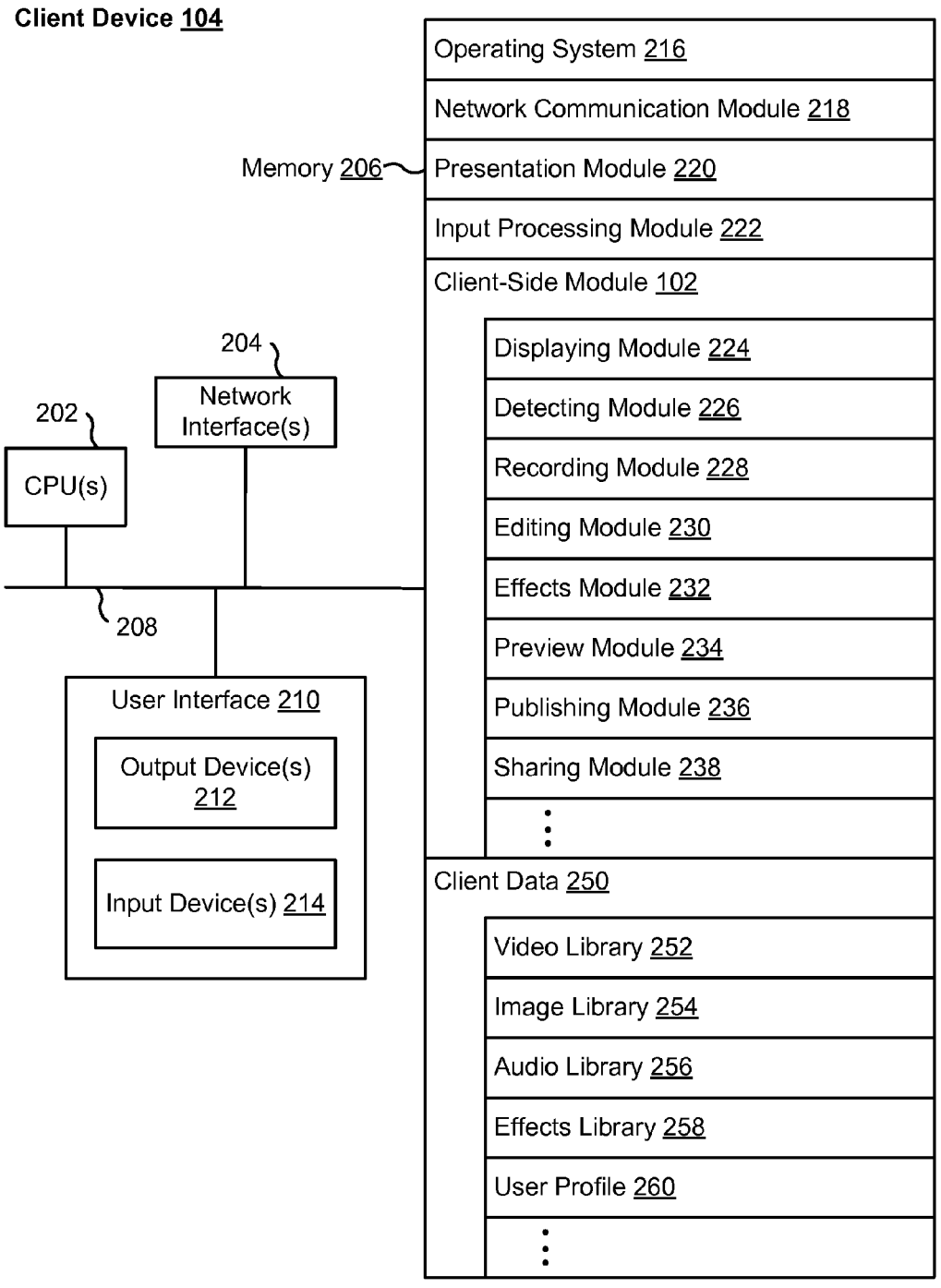
Server-Side Module 106
Media Files 114
Processor(s) 112
Media Item Metadata 116
I/O Interface to Client(s) 118
I/O Interface to External Service(s) 120
Audio Source 124a
Audio Source 124n
Network(s) 110
Media File Source 126a
Media File Source 126n
104-1
Client-Side Module
102-1
Client-Side Module
102-2
104-2

Figure 1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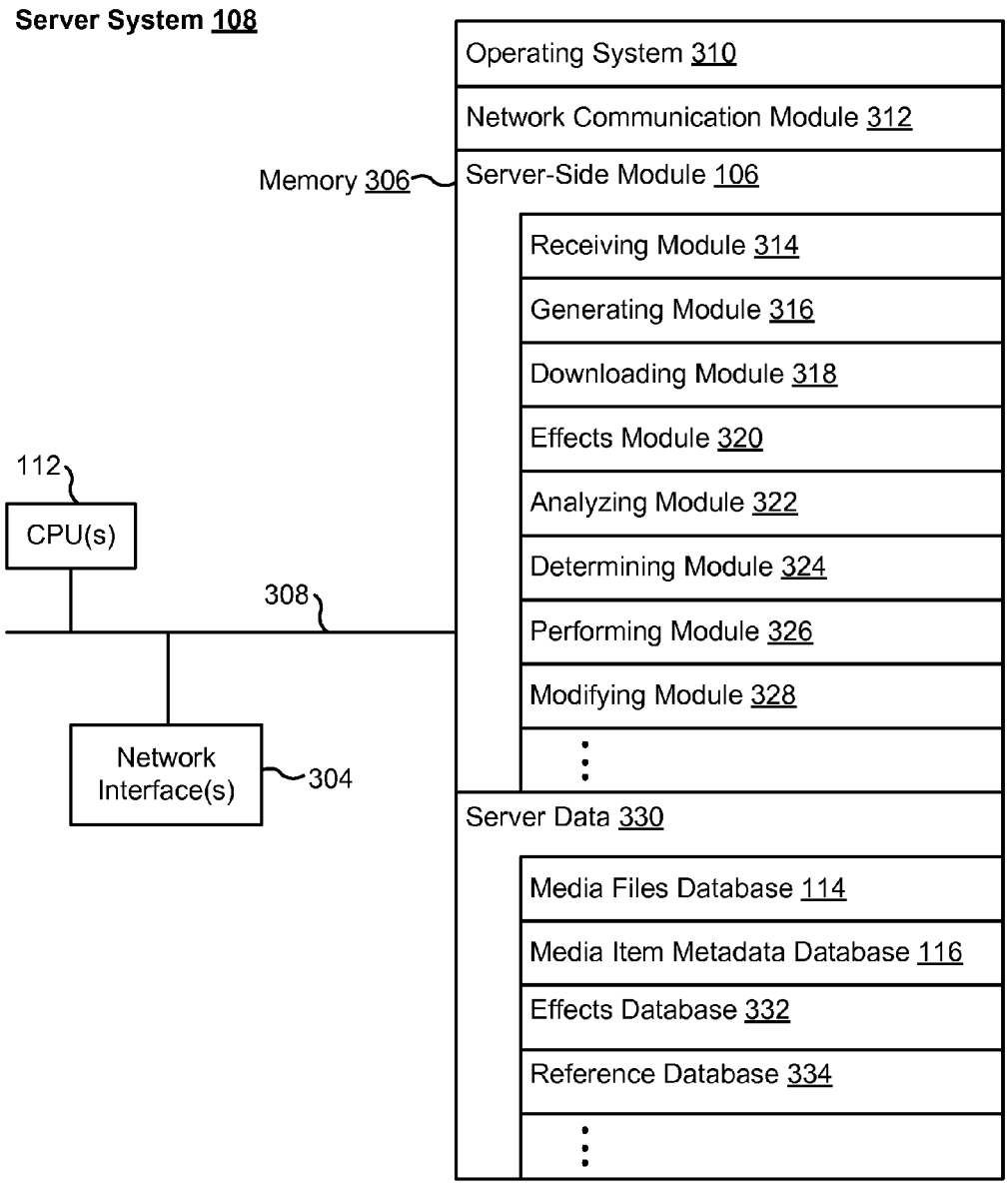
Operating System 216
Network Communication Module 218
Memory 206
Presentation Module 220
Input Processing Module 222
Client-Side Module 102
Displaying Module 224
Detecting Module 226
Recording Module 228
Editing Module 230
Effects Module 232
Preview Module 234
Publishing Module 236
Sharing Module 238
204
Network Interface(s)
202
CPU(s)
208
User Interface 210
Output Device(s) 212
Input Device(s) 214
Client Data 250
Video Library 252
Image Library 254
Audio Library 256
Effects Library 258
User Profile 260

Figure 2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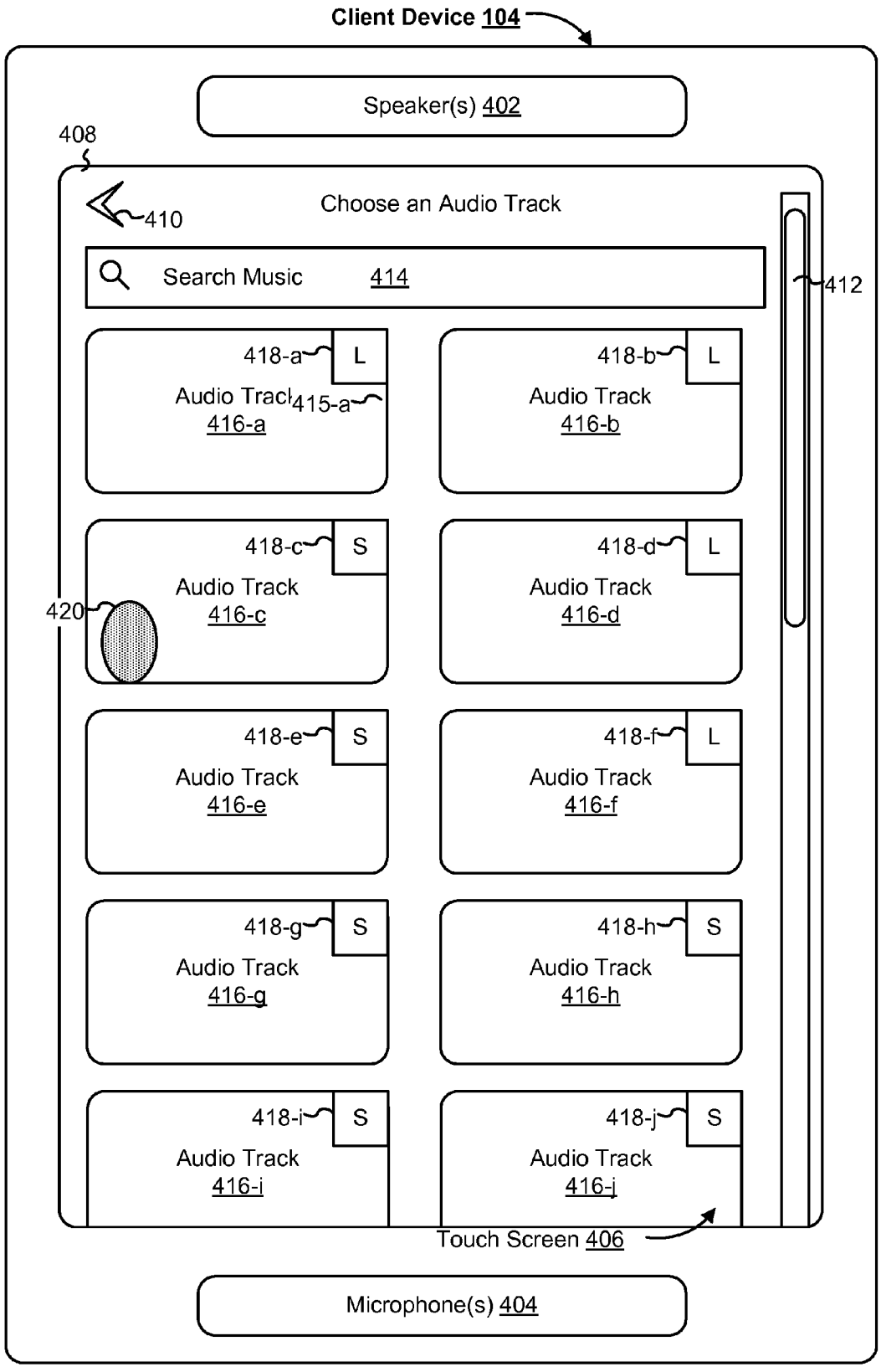
Operating System 310
Network Communication Module 312
Memory 306
Server-Side Module 106
Receiving Module 314
Generating Module 316
Downloading Module 318
Effects Module 320
Analyzing Module 322
Determining Module 324
Performing Module 326
Modifying Module 328
112
CPU(s)
308
Network Interface(s)
304
Server Data 330
Media Files Database 114
Media Item Metadata Database 116
Effects Database 332
Reference Database 334

Figure 3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Speaker(s) 402
408
410
Choose an Audio Track
Search Music 414
412
418-a
L
Audio Track
416-a
415-a
418-b
L
Audio Track
416-b
418-c
S
Audio Track
416-c
420
418-d
L
Audio Track
416-d
418-e
S
Audio Track
416-e
418-f
L
Audio Track
416-f
418-g
S
Audio Track
416-g
418-h
S
Audio Track
416-h
418-i
S
Audio Track
416-i
418-j
S
Audio Track
416-j
Touch Screen 406
Microphone(s) 404

Figure 4A

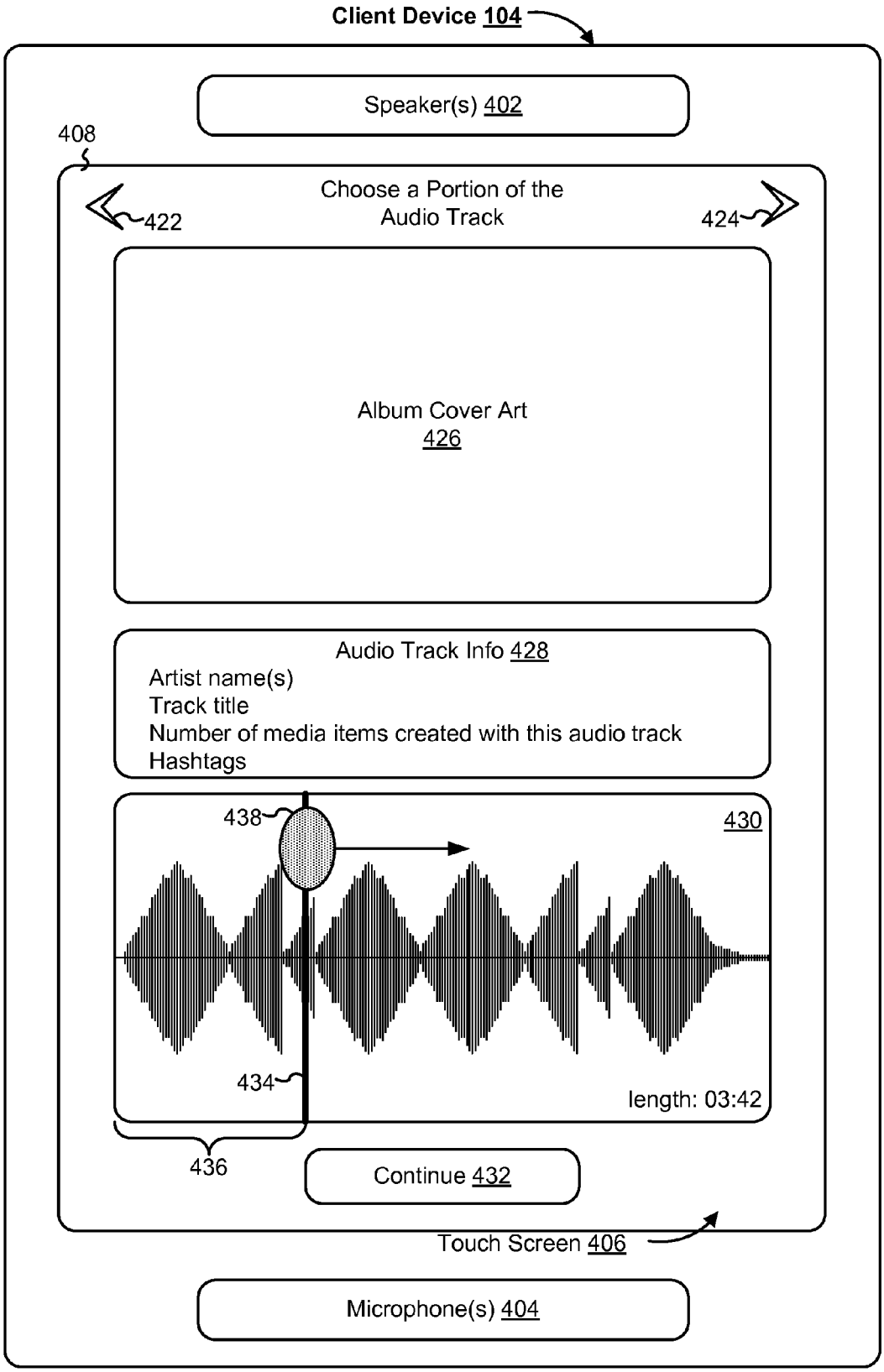

Client Device 104
Speaker(s) 402
408
Choose a Portion of the Audio Track
422
424
Album Cover Art 426
Audio Track Info 428
Artist name(s)
Track title
Number of media items created with this audio track
Hashtags
438
430
434
length: 03:42
436
Continue 432
Touch Screen 406
Microphone(s) 404

Figure 4B

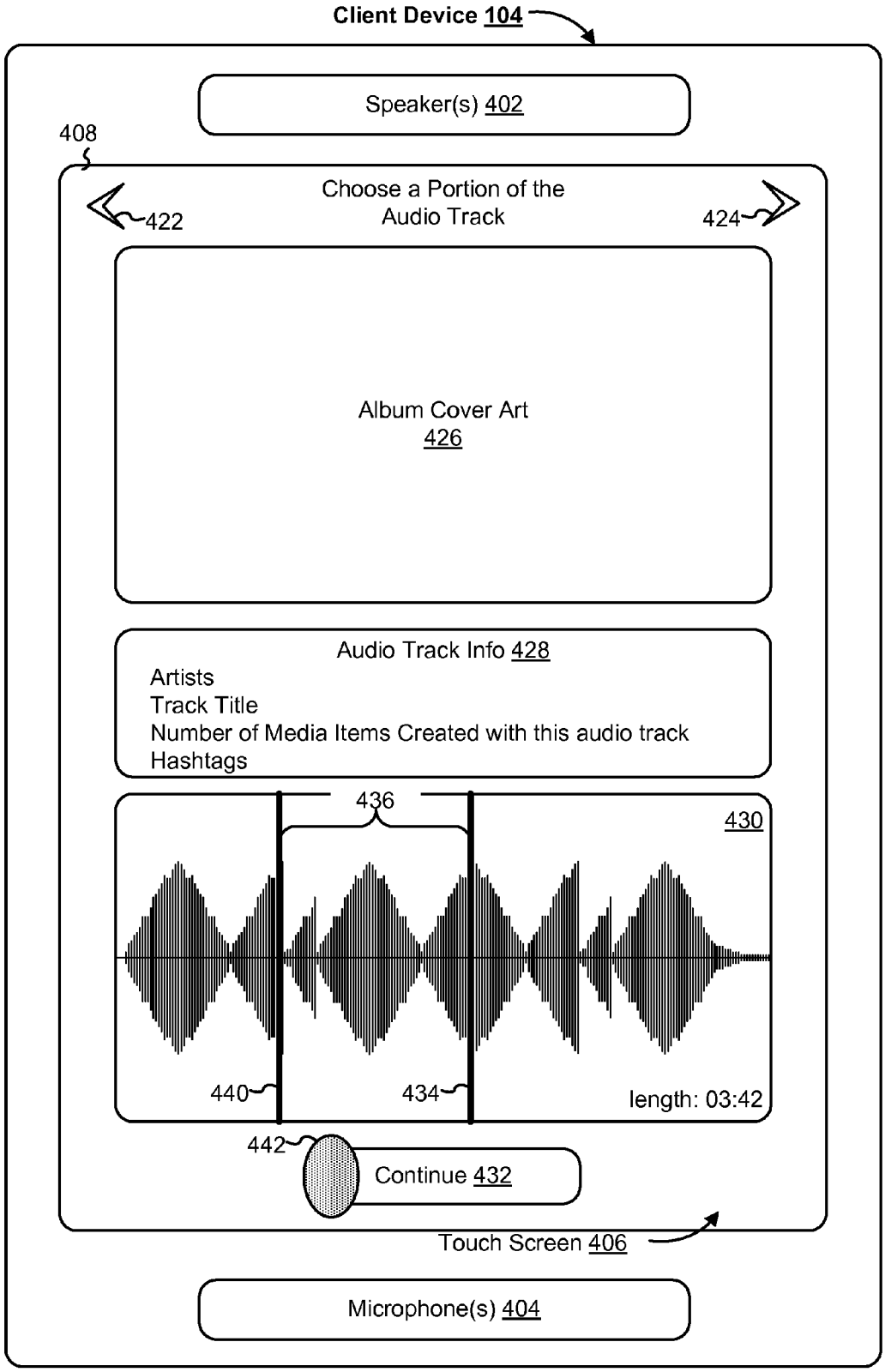

Client Device 104
Speaker(s) 402
408
Choose a Portion of the Audio Track
422
424
Album Cover Art 426
Audio Track Info 428
Artists
Track Title
Number of Media Items Created with this audio track
Hashtags
436
430
440
434
length: 03:42
442
Continue 432
Touch Screen 406
Microphone(s) 404

Figure 4C

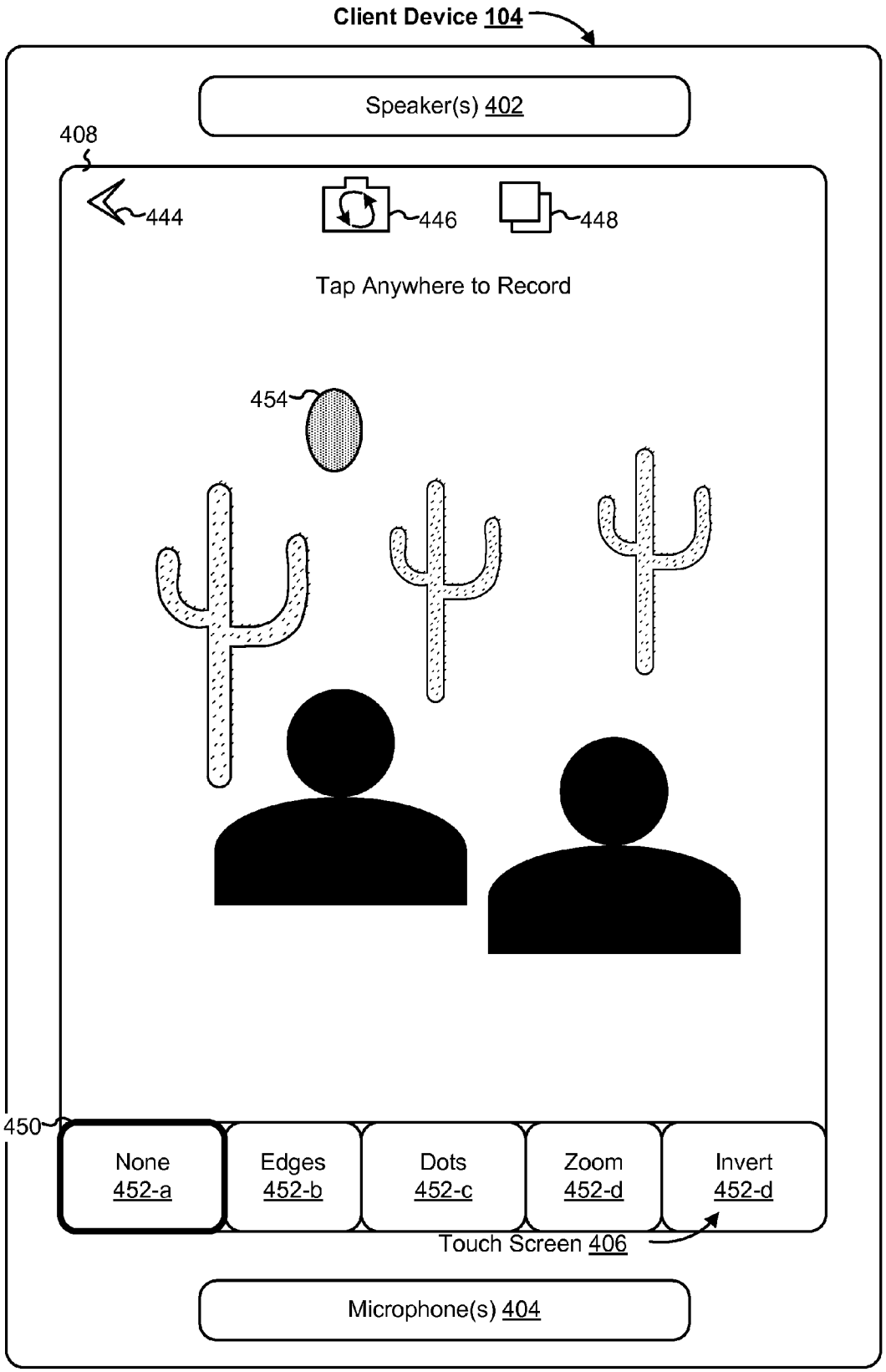

Client Device 104
Speaker(s) 402
408
444
446
448
Tap Anywhere to Record
454
450
None 452-a
Edges 452-b
Dots 452-c
Zoom 452-d
Invert 452-d
Touch Screen 406
Microphone(s) 404

Figure 4D

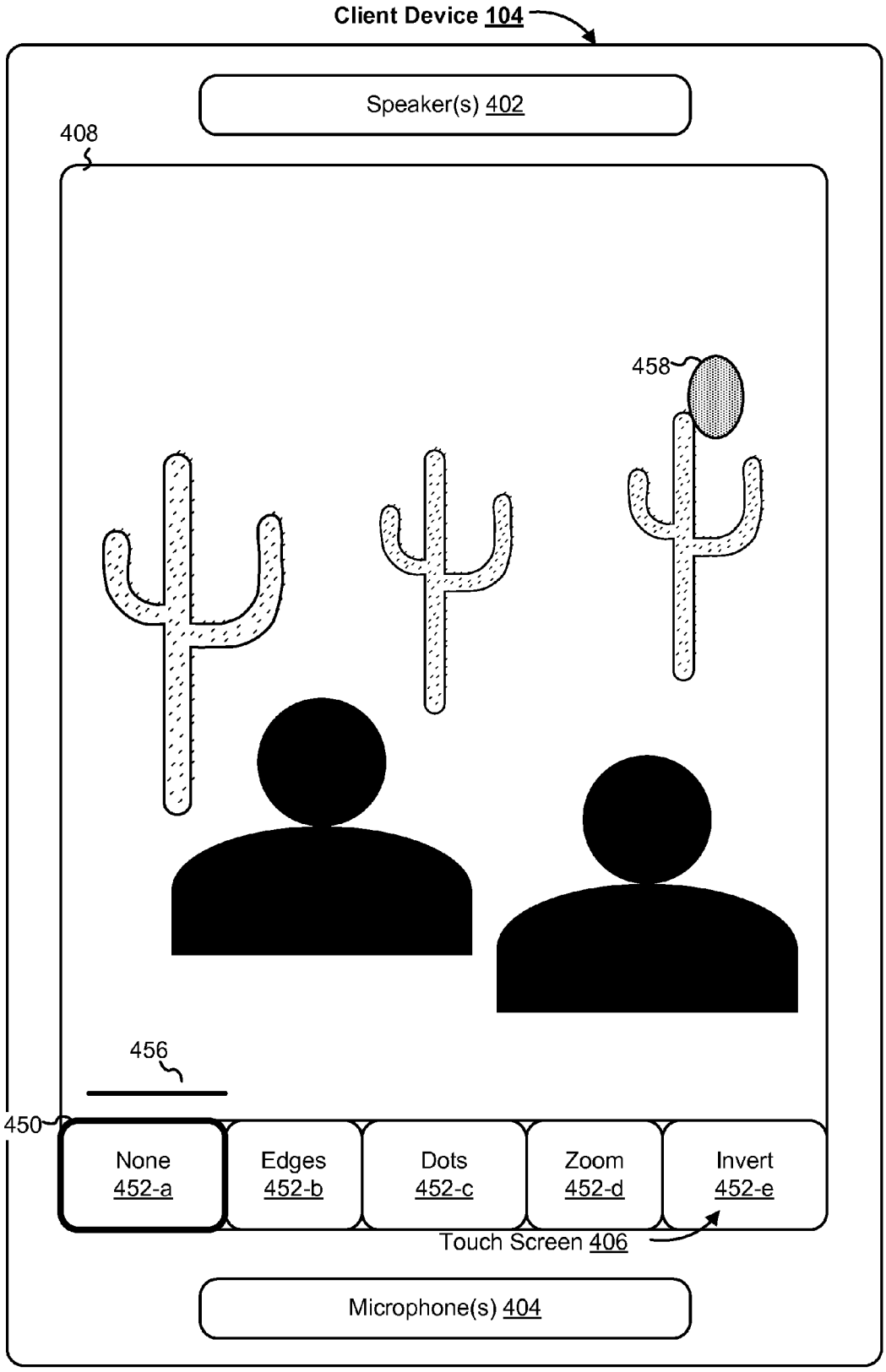

Client Device 104
Speaker(s) 402
408
458
456
450
None 452-a
Edges 452-b
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4E

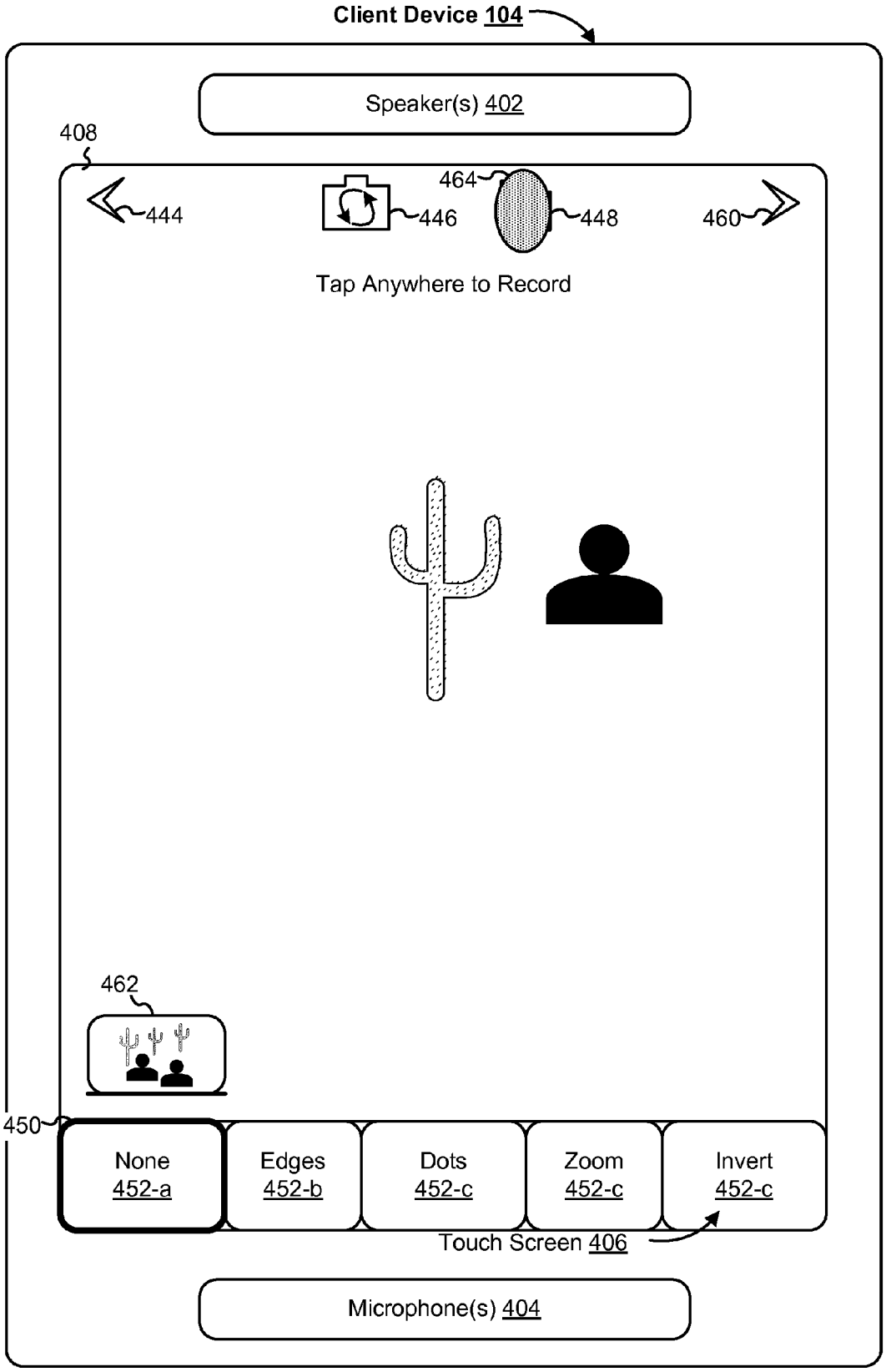

Client Device 104
Speaker(s) 402
408
464
444
446
448
460
Tap Anywhere to Record
462
450
None
452-a
Edges
452-b
Dots
452-c
Zoom
452-c
Invert
452-c
Touch Screen 406
Microphone(s) 404

Figure 4F

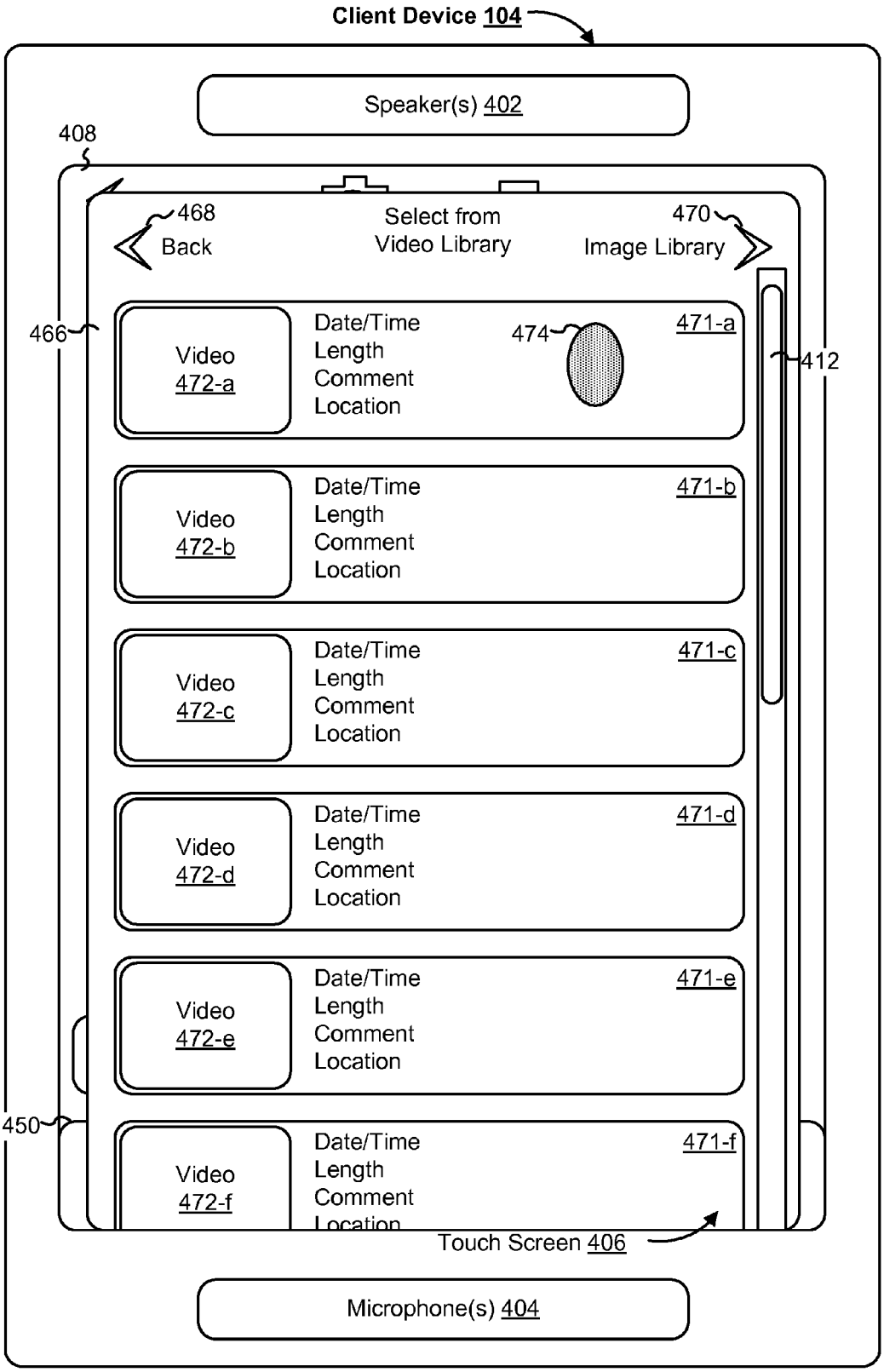

Client Device 104
Speaker(s) 402
408
468
Back
Select from
Video Library
470
Image Library
466
Video
472-a
Date/Time
Length
Comment
Location
474
471-a
412
Video
472-b
Date/Time
Length
Comment
Location
471-b
Video
472-c
Date/Time
Length
Comment
Location
471-c
Video
472-d
Date/Time
Length
Comment
Location
471-d
Video
472-e
Date/Time
Length
Comment
Location
471-e
450
Video
472-f
Date/Time
Length
Comment
Location
471-f
Touch Screen 406
Microphone(s) 404

Figure 4G

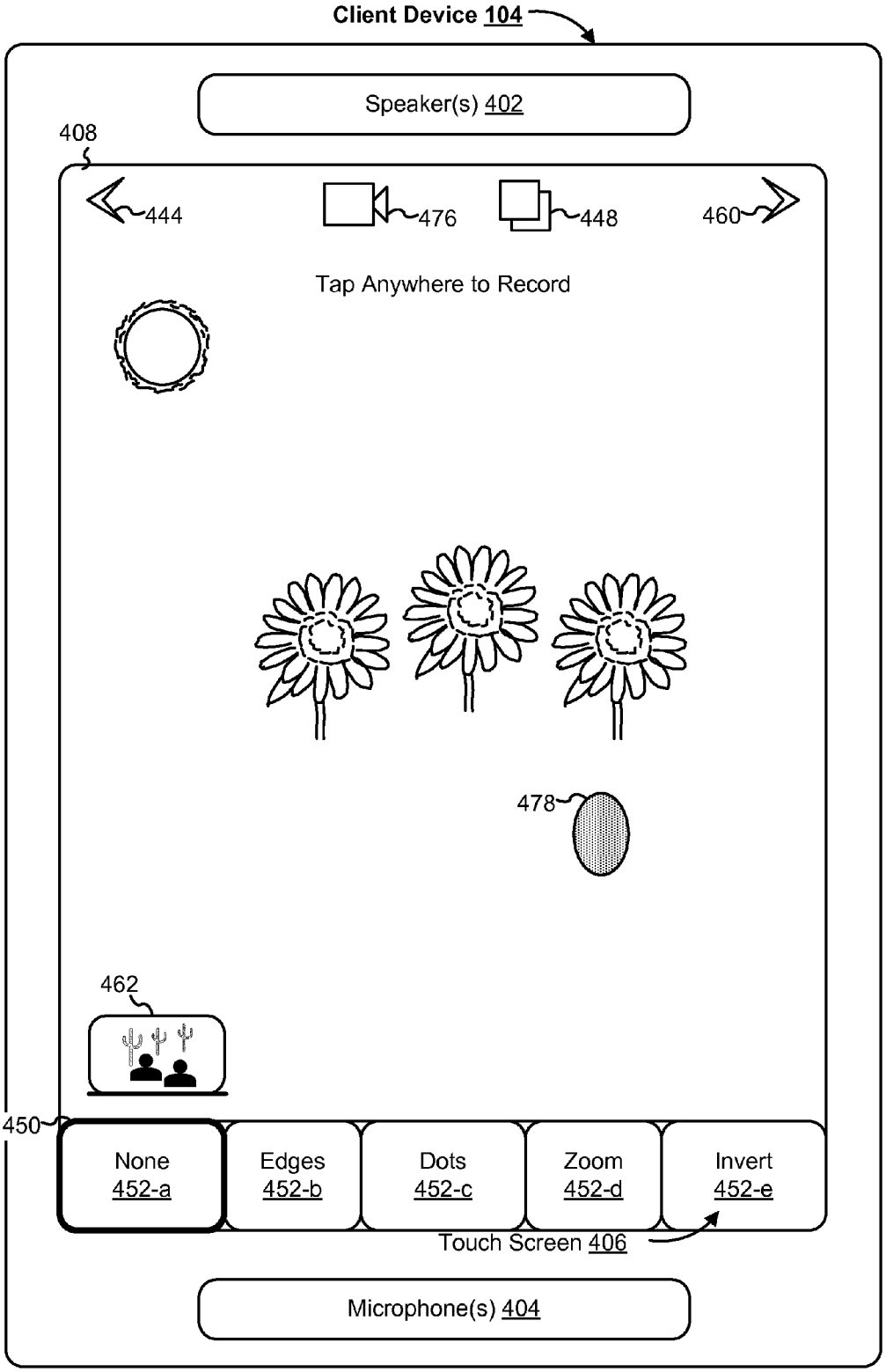
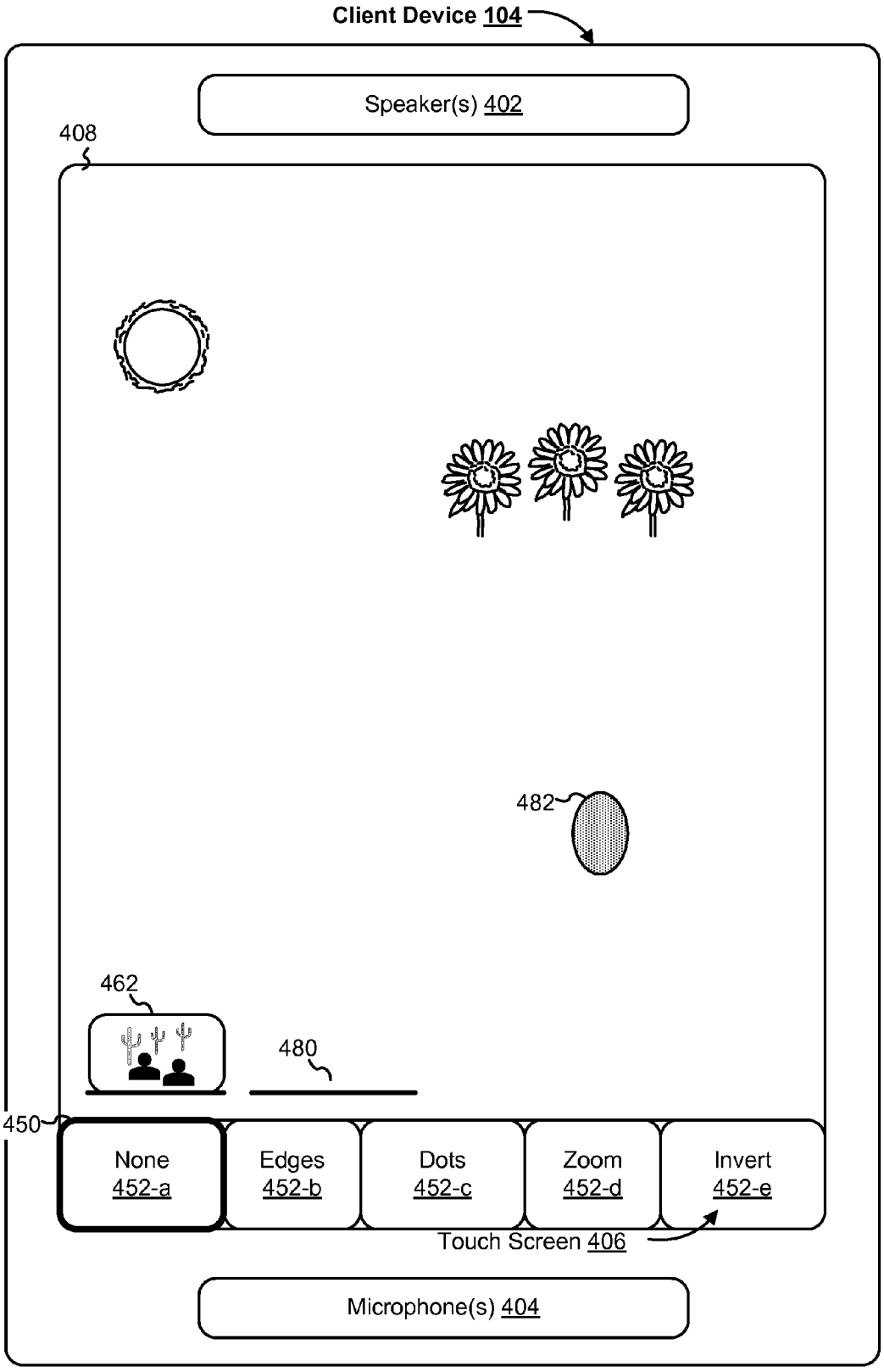

Client Device 104
Speaker(s) 402
408
444
476
448
460
Tap Anywhere to Record
478
462
450
None 452-a
Edges 452-b
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4H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Speaker(s) 402
408
482
462
480
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None 452-a
Edges 452-b
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4I

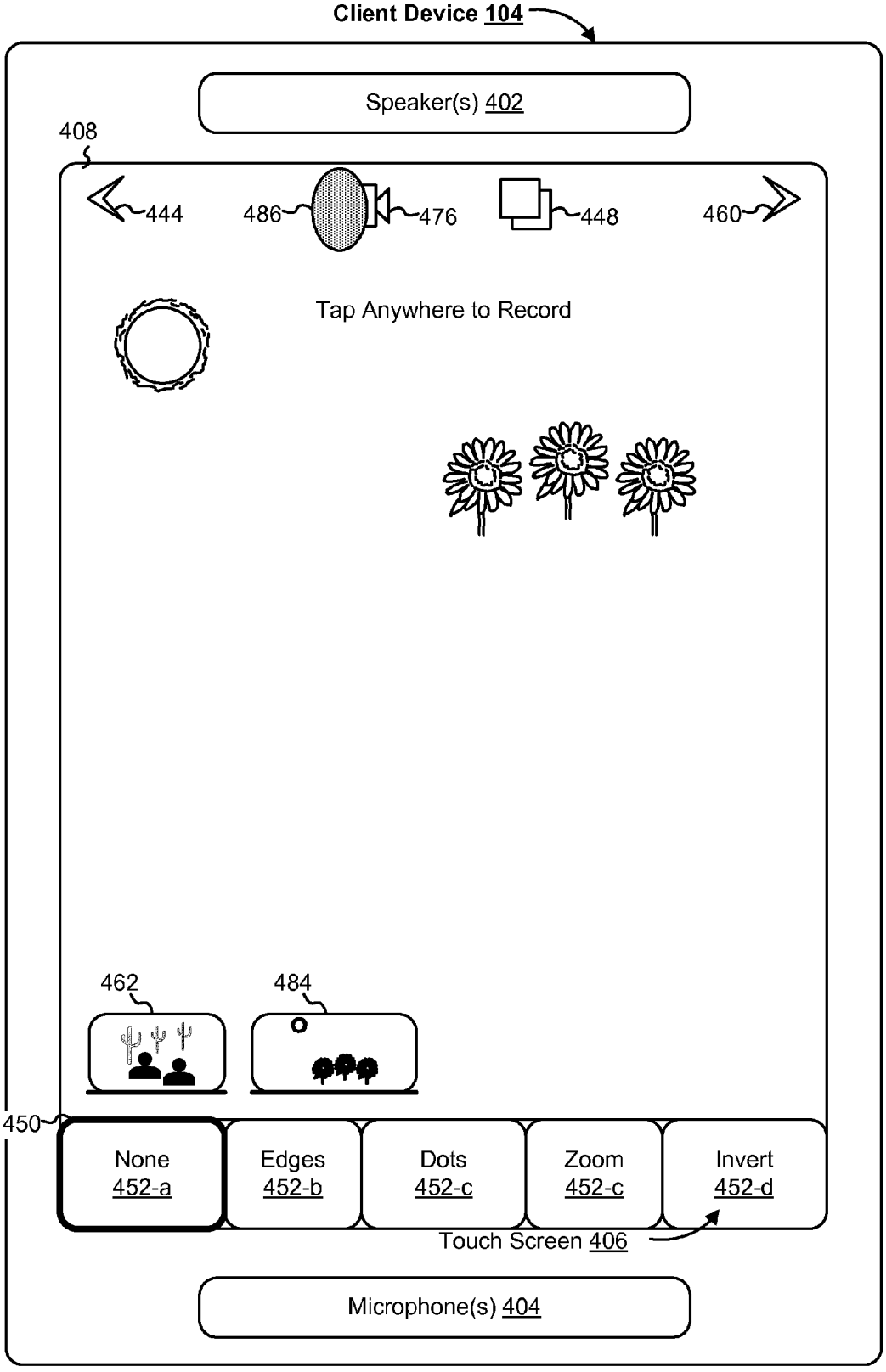

Client Device 104
Speaker(s) 402
408
444
486
476
448
460
Tap Anywhere to Record
462
484
450
None
452-a
Edges
452-b
Dots
452-c
Zoom
452-c
Invert
452-d
Touch Screen 406
Microphone(s) 404

Figure 4J

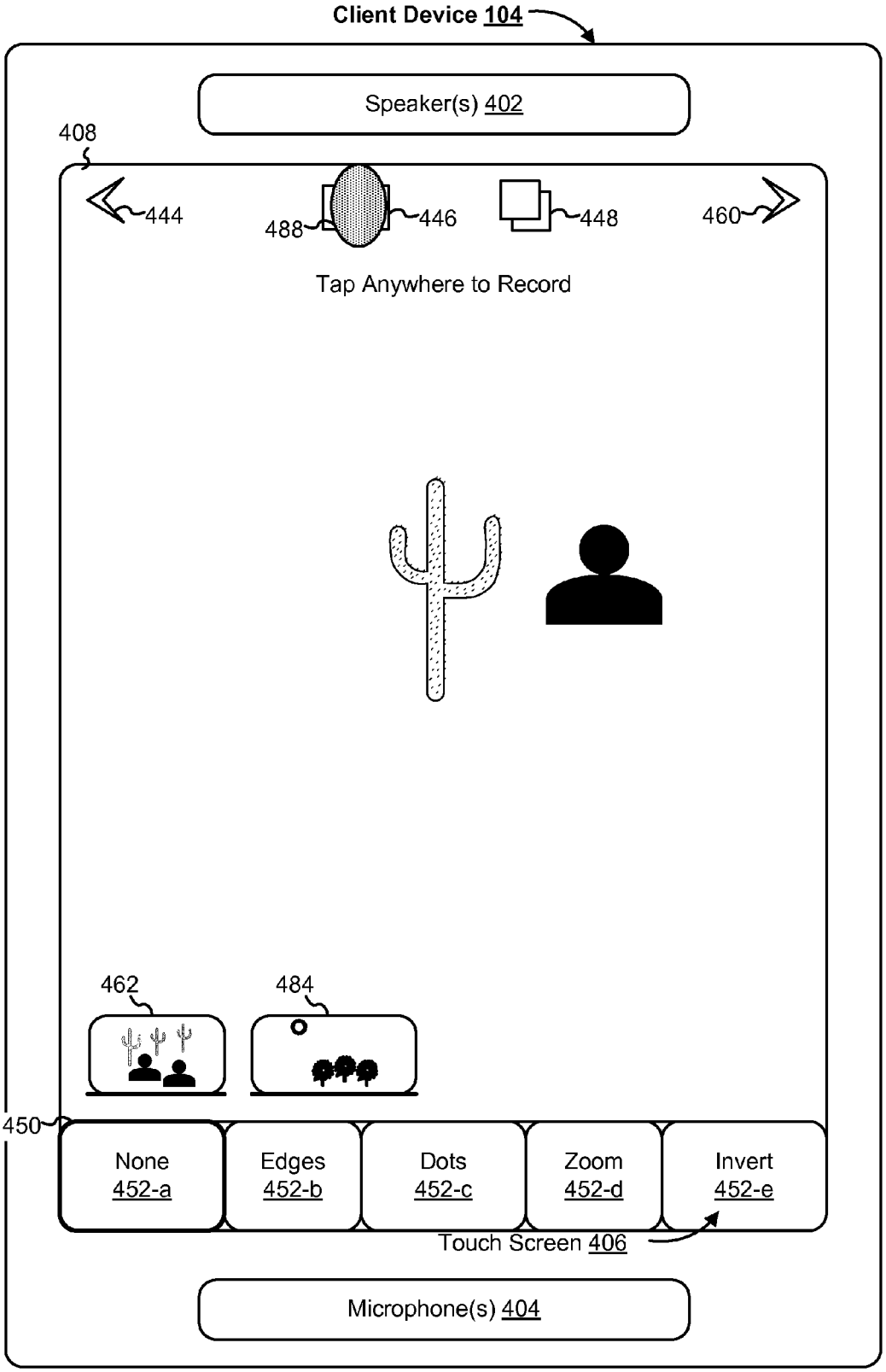
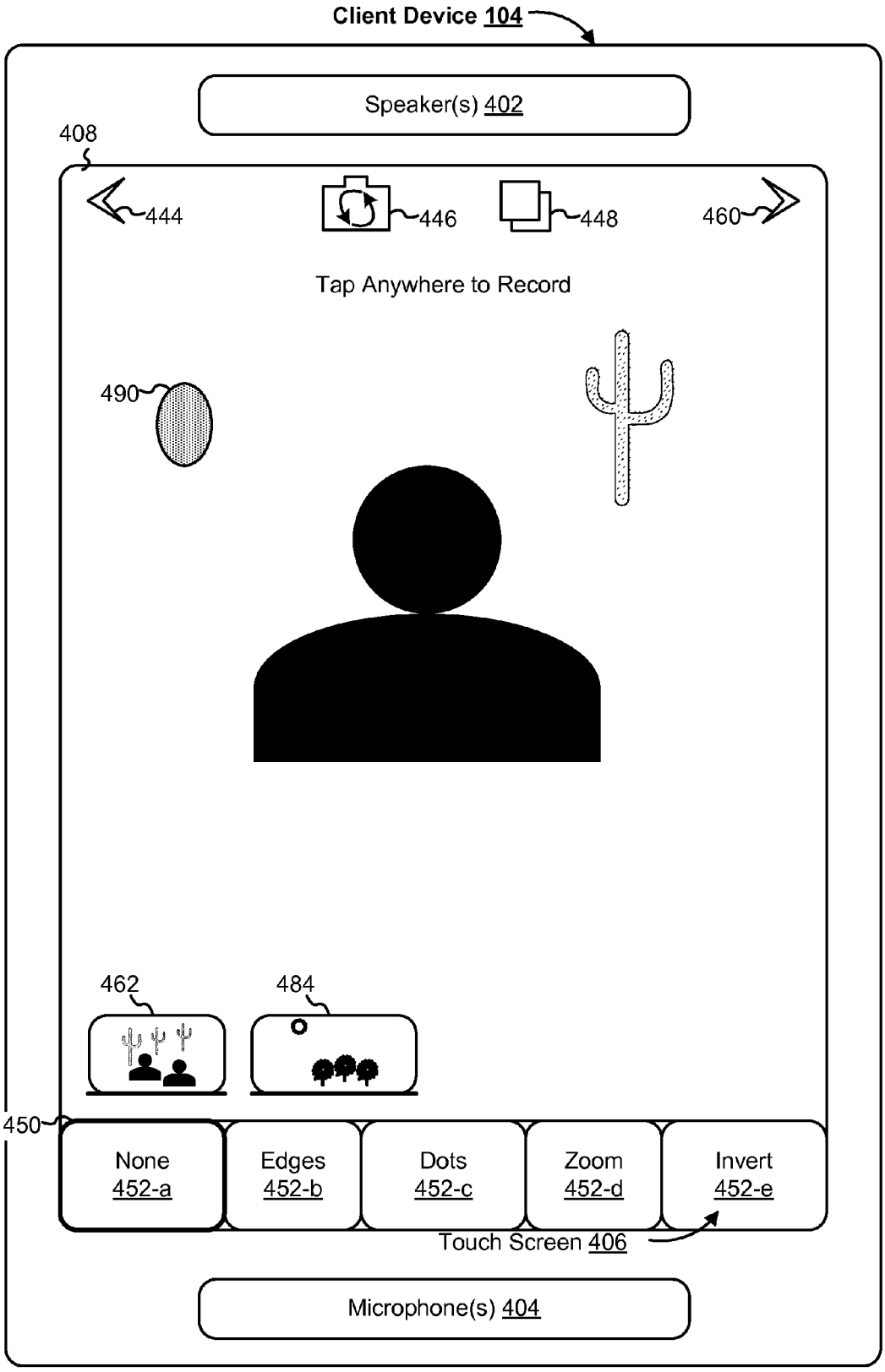

Client Device 104
Speaker(s) 402
408
444
488
446
448
460
Tap Anywhere to Record
462
484
450
None
452-a
Edges
452-b
Dots
452-c
Zoom
452-d
Invert
452-e
Touch Screen 406
Microphone(s) 404

Figure 4K


Client Device 104
Speaker(s) 402
408
444
446
448
460
Tap Anywhere to Record
490
462
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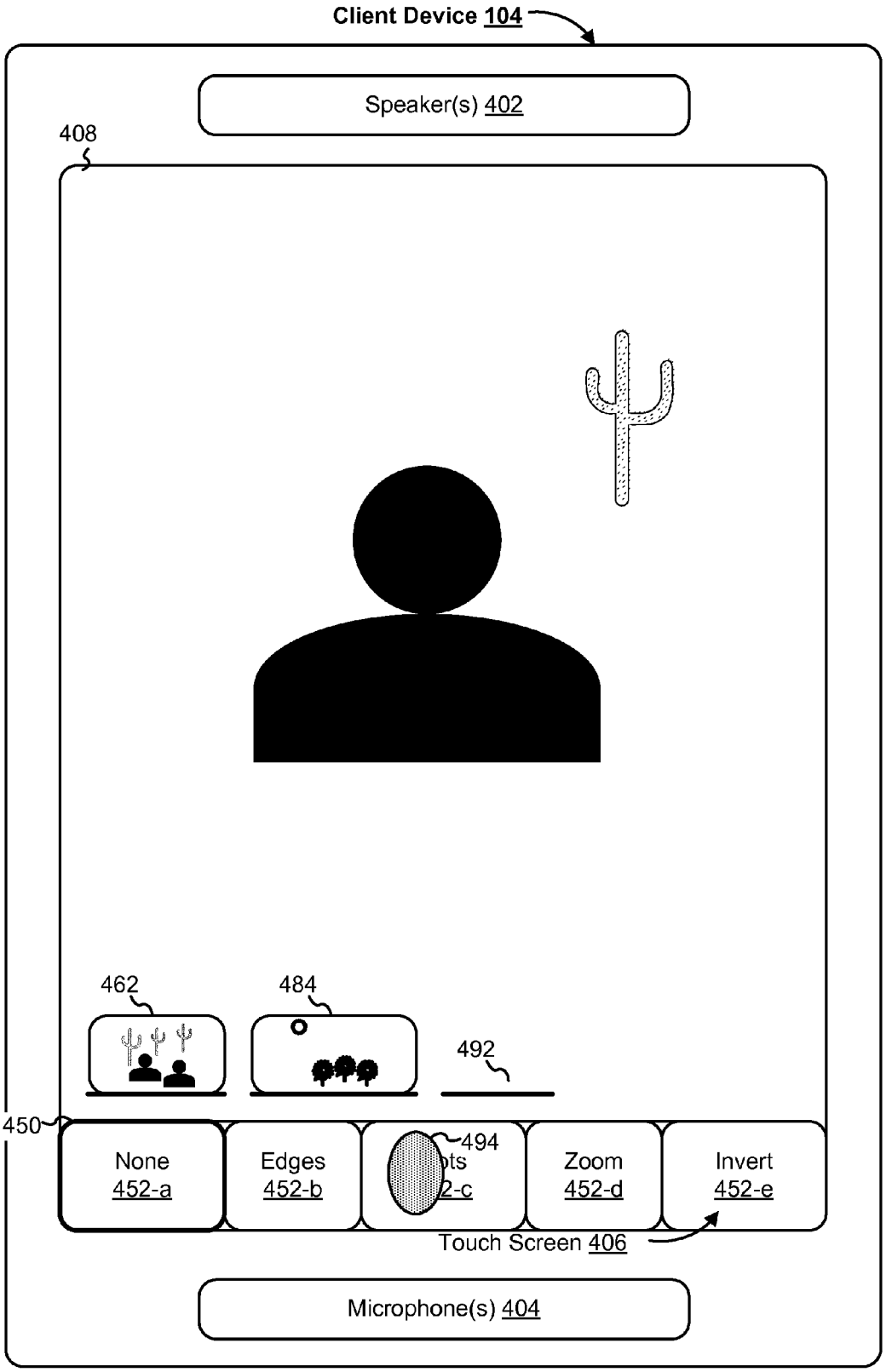
Edges 452-b
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4L


Client Device 104
Speaker(s) 402
408
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484
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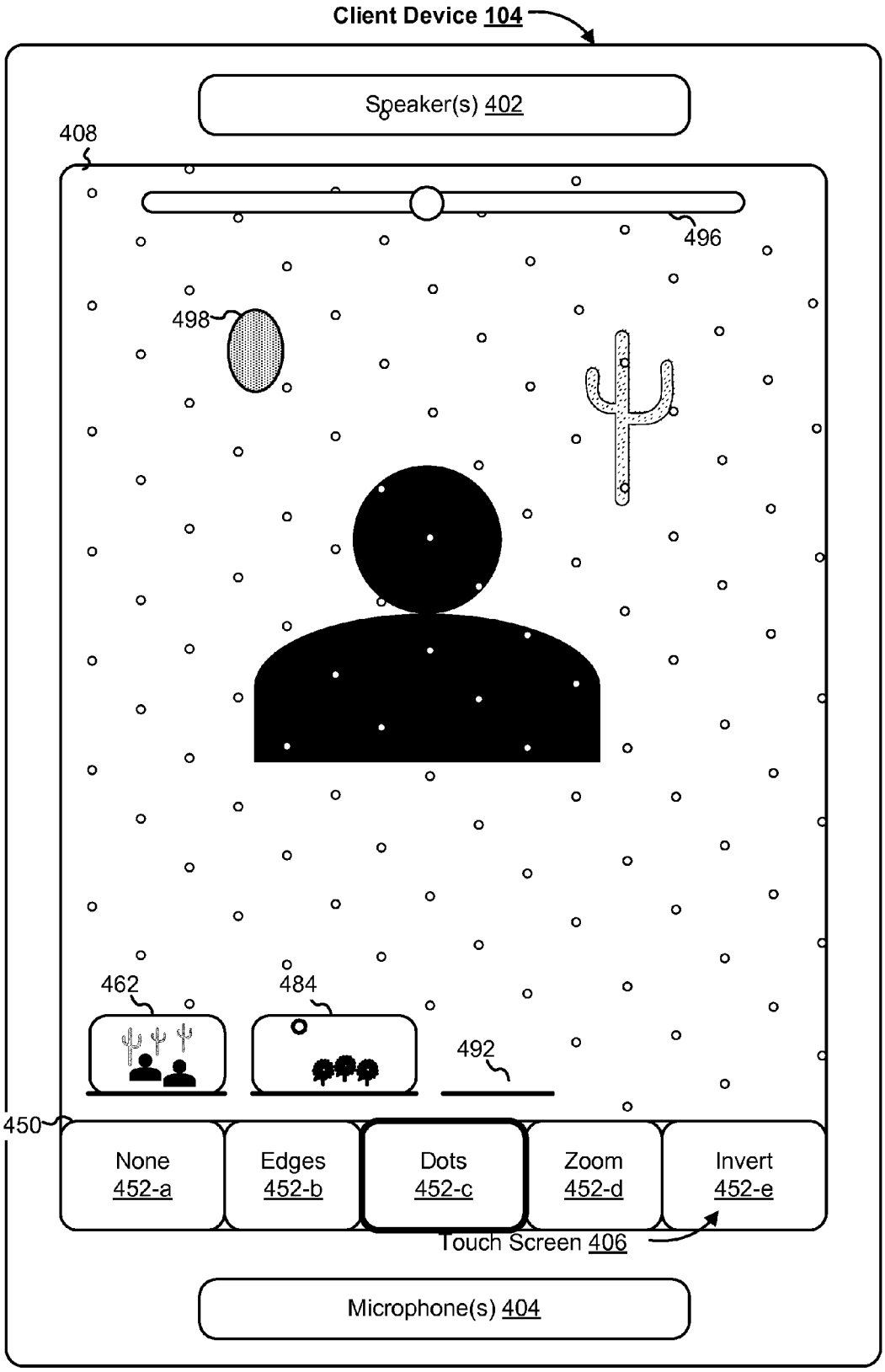
Edges
452-b
Zoom
452-d
Invert
452-e
Touch Screen 406
Microphone(s) 404

Figure 4M


Client Device 104
Speaker(s) 402
408
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498
462
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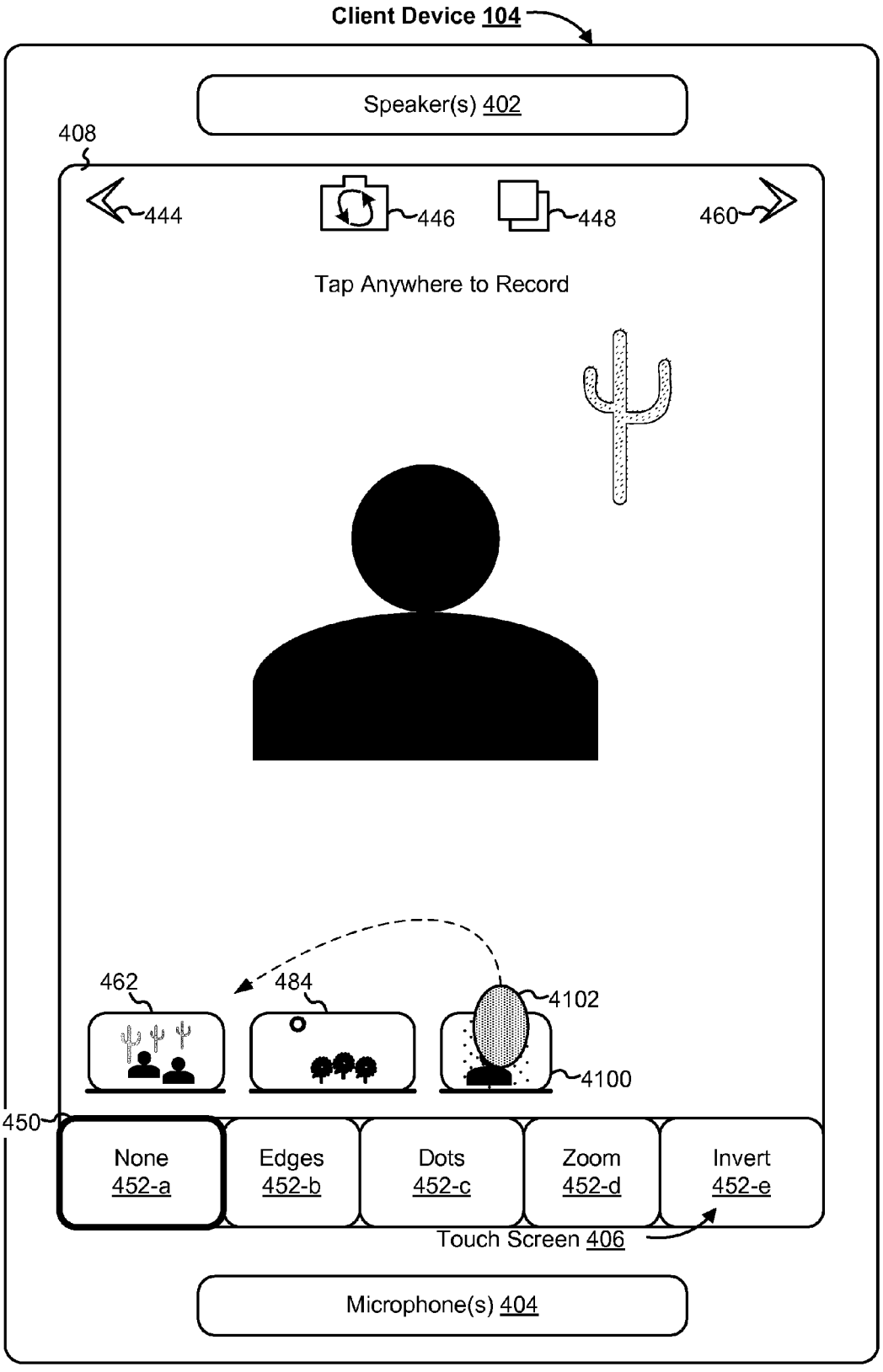
Edges 452-b
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4N


Client Device 104
Speaker(s) 402
408
444
446
448
460
Tap Anywhere to Record
462
484
4102
4100
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Edges 452-b
Dots 452-c
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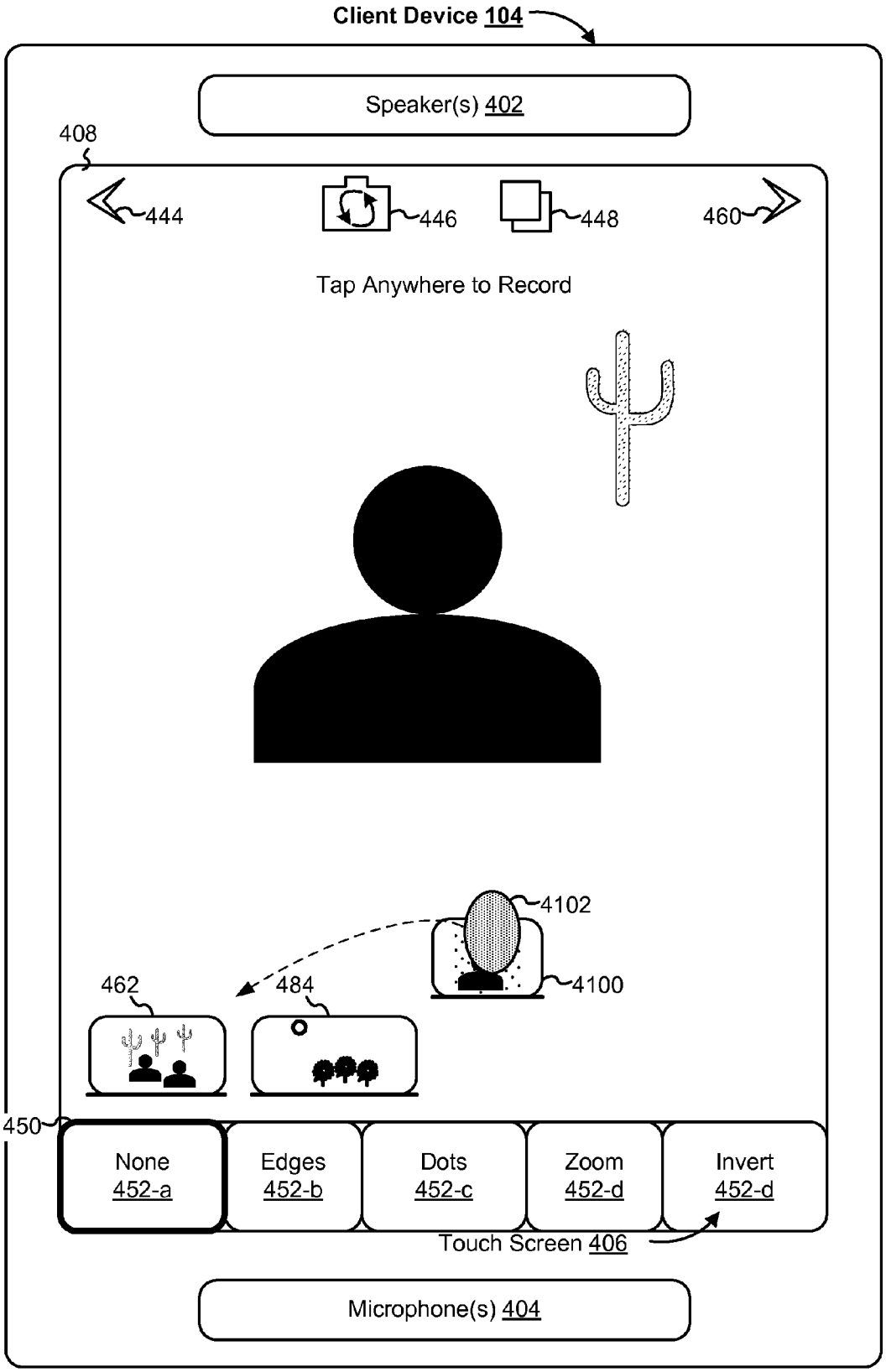
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4O


Client Device 104
Speaker(s) 402
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4102
4100
462
484
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Dots
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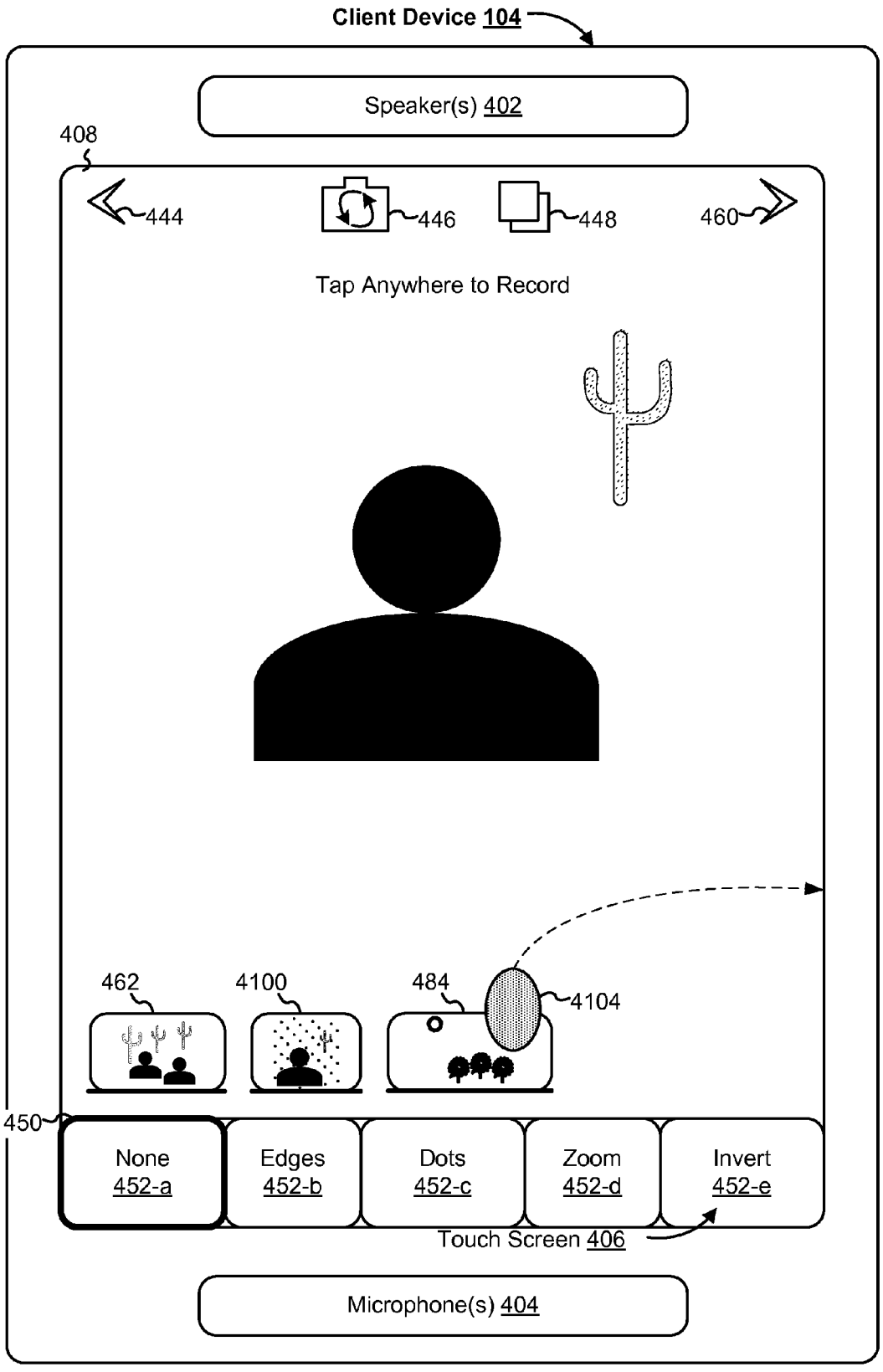
Zoom
452-d
Invert
452-d
Touch Screen 406
Microphone(s) 404

Figure 4P


Client Device 104
Speaker(s) 402
408
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446
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Tap Anywhere to Record
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4100
484
4104
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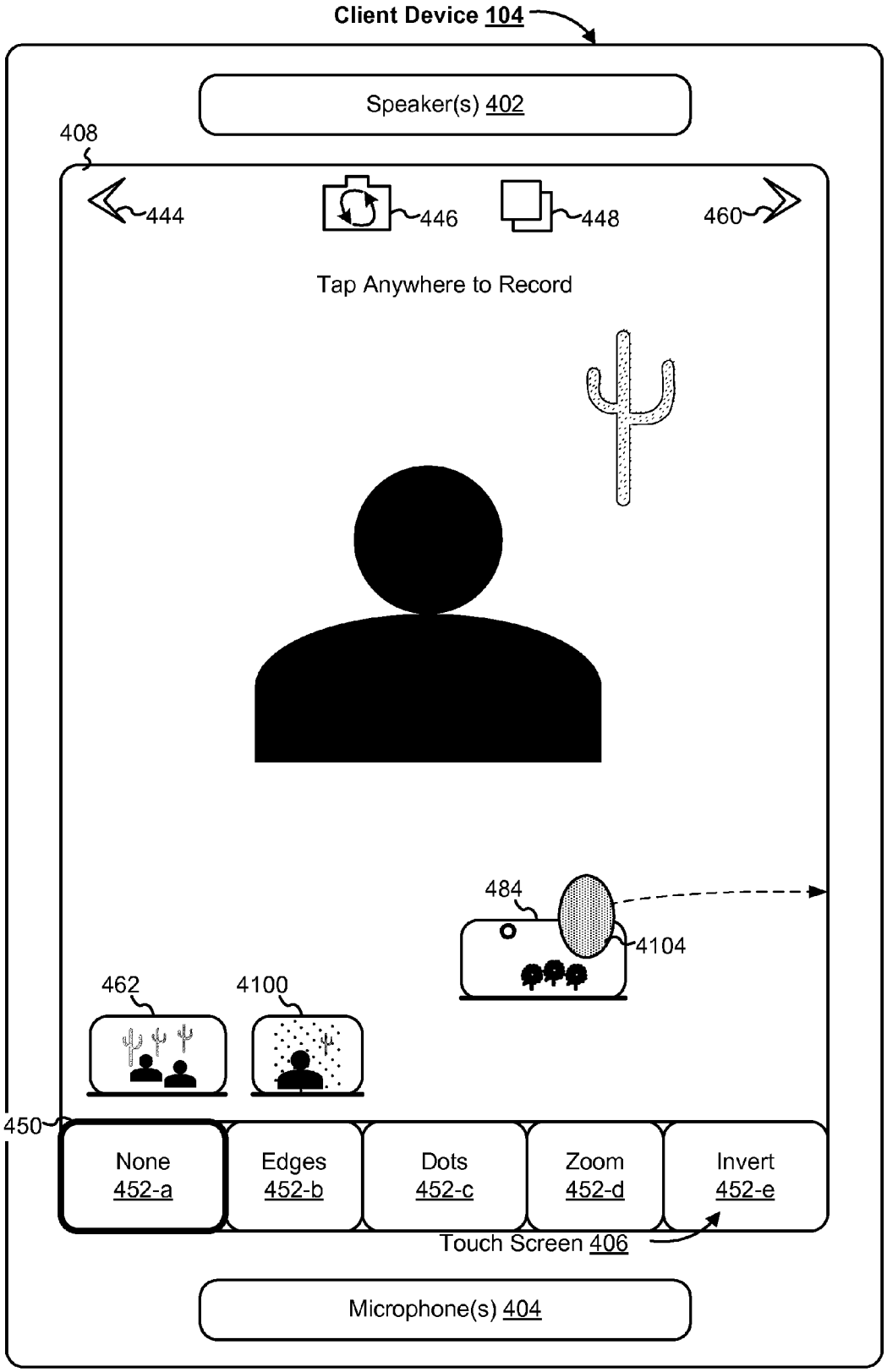
452-d
Invert
452-e
Touch Screen 406
Microphone(s) 404

Figure 4Q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Speaker(s) 402
408
444
446
448
460
Tap Anywhere to Record
484
4104
462
4100
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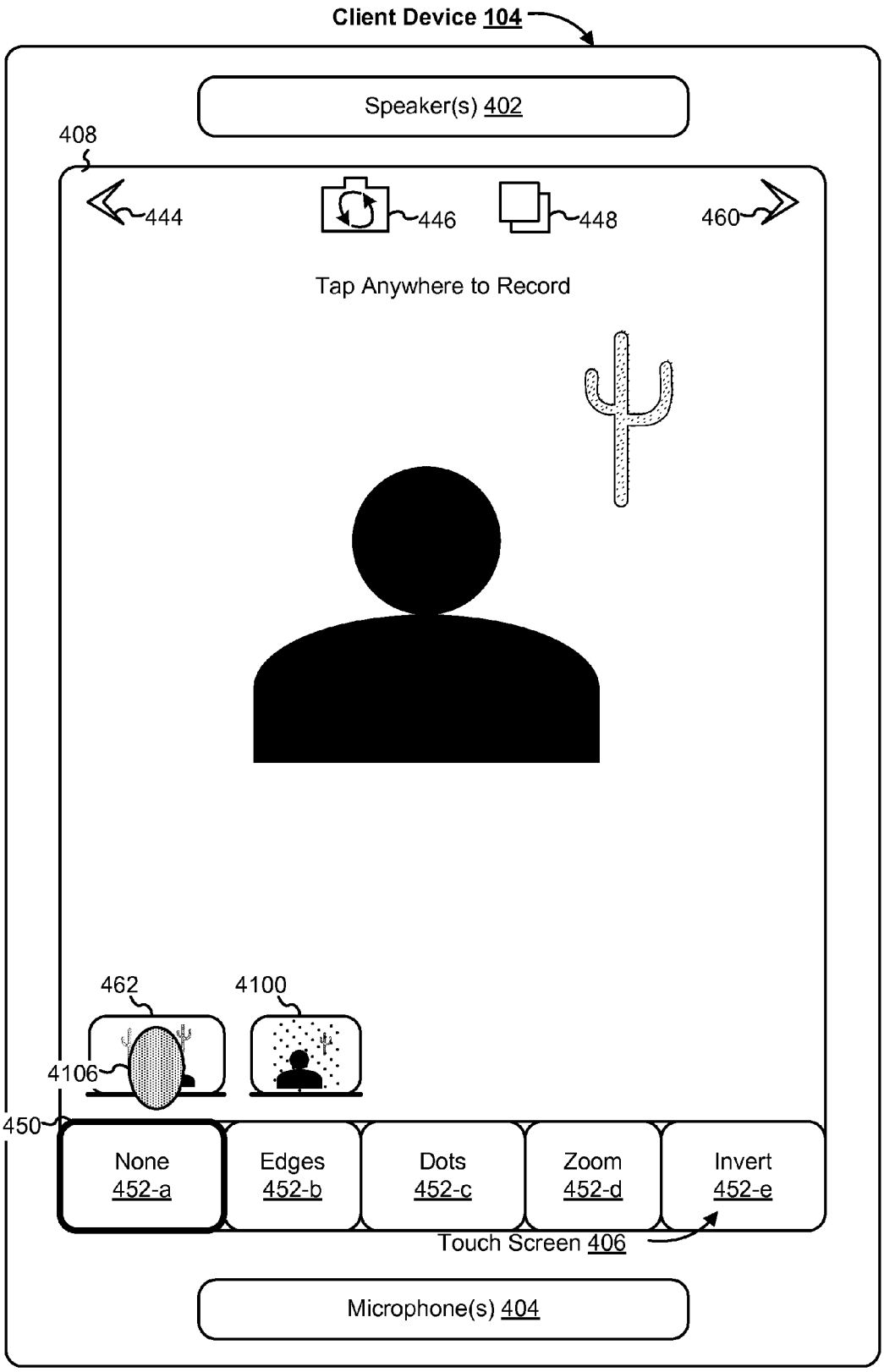
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4R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460
Tap Anywhere to Record
462
4100
4106
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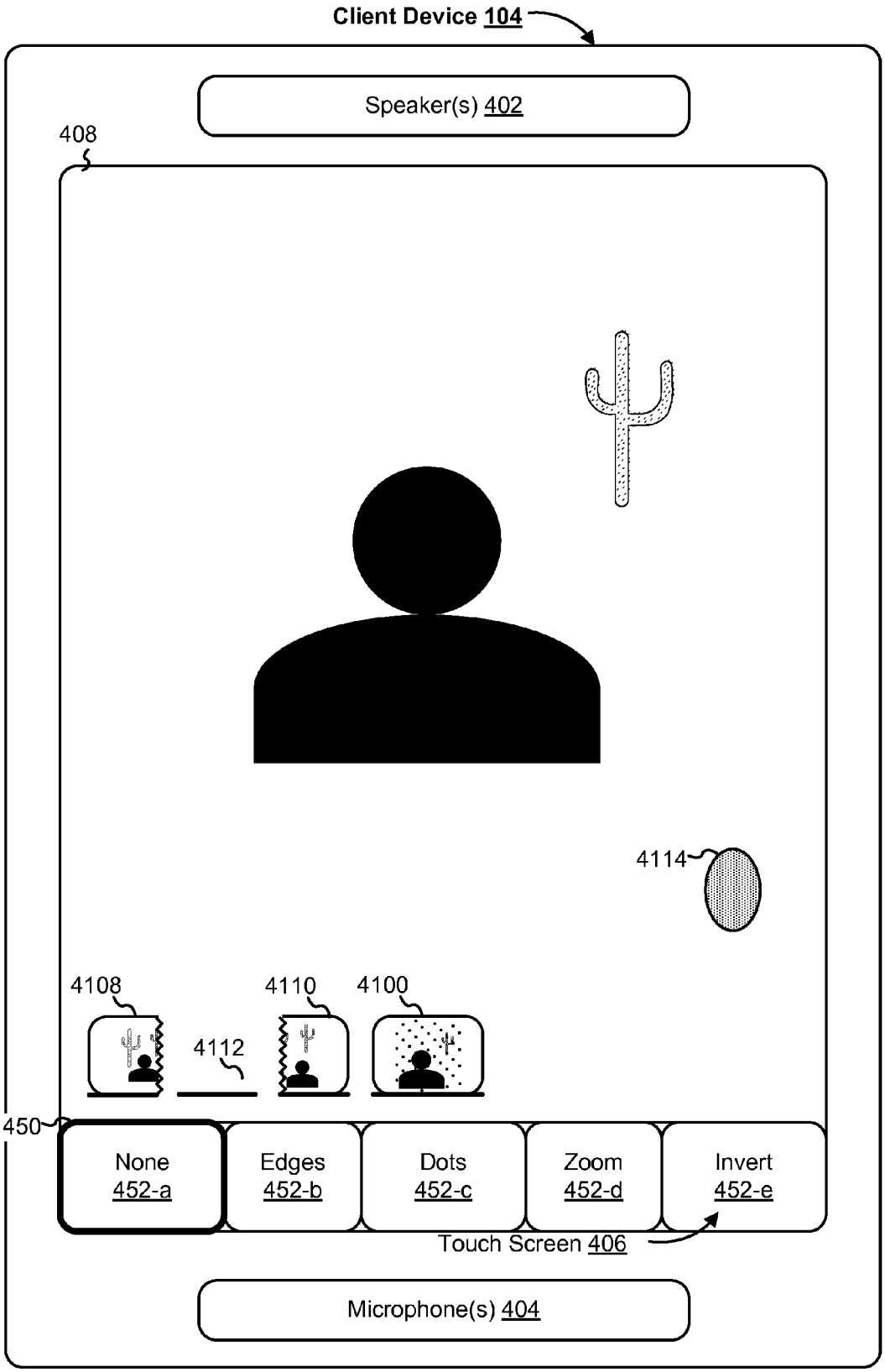
452-b
Dots
452-c
Zoom
452-d
Invert
452-e
Touch Screen 406
Microphone(s) 404

Figure 4S


Client Device 104
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4108
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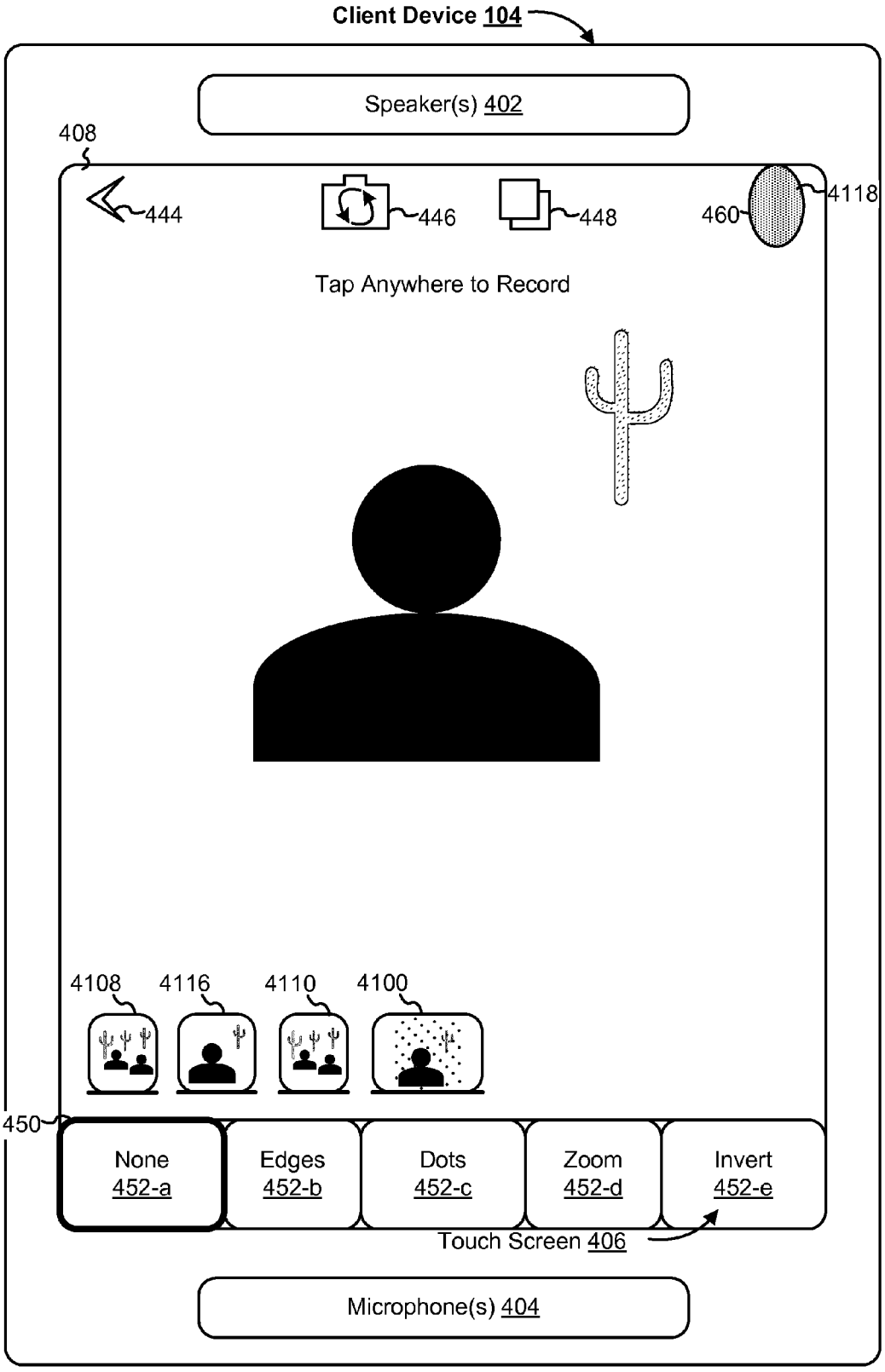
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4T


Client Device 104
Speaker(s) 402
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446
448
460
4118
Tap Anywhere to Record
4108
4116
4110
4100
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None 452-a
Edges 452-b
Dots 452-c
Zoom 452-d
Invert 452-e
Touch Screen 406
Microphone(s) 404

Figure 4U

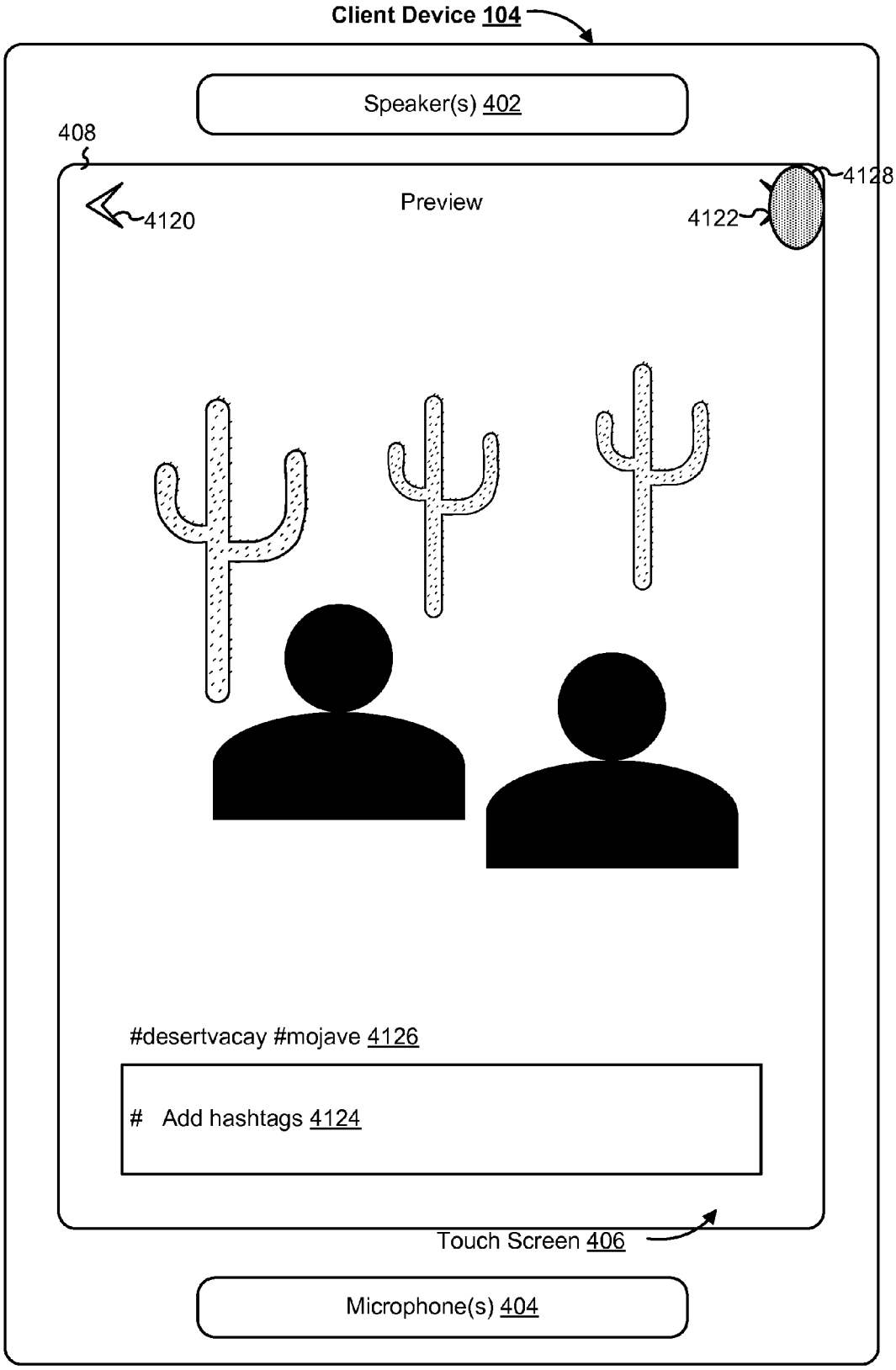
Client Device 104
Speaker(s) 402
408
4128
Preview
4120
4122
#desertvacay #mojave 4126
Add hashtags 4124
Touch Screen 406
Microphone(s) 404

Figure 4V

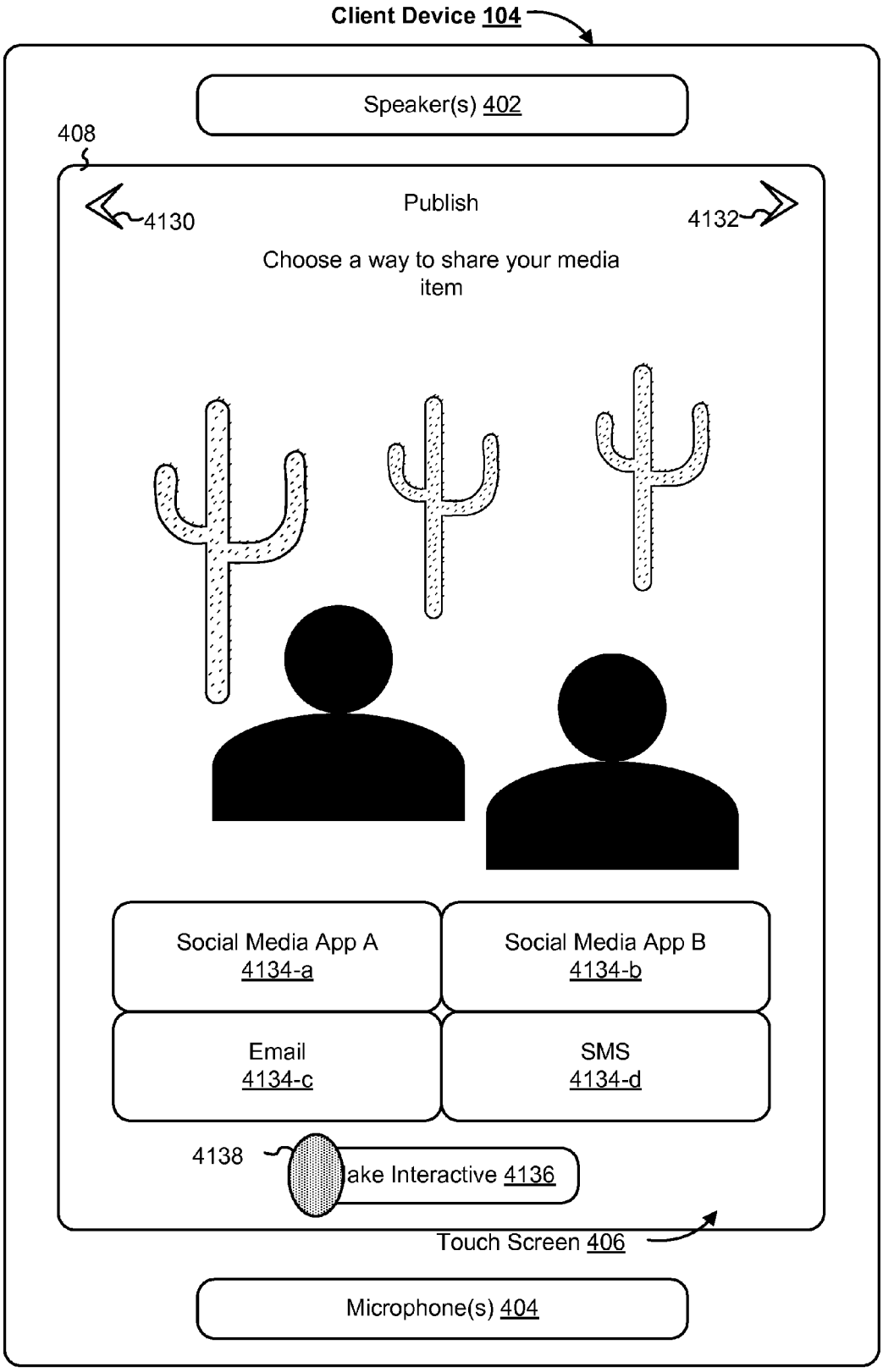
Client Device 104
Speaker(s) 402
408
4130
Publish
4132
Choose a way to share your media item
Social Media App A 4134-a
Social Media App B 4134-b
Email 4134-c
SMS 4134-d
4138
ake Interactive 4136
Touch Screen 406
Microphone(s) 404

Figure 4W

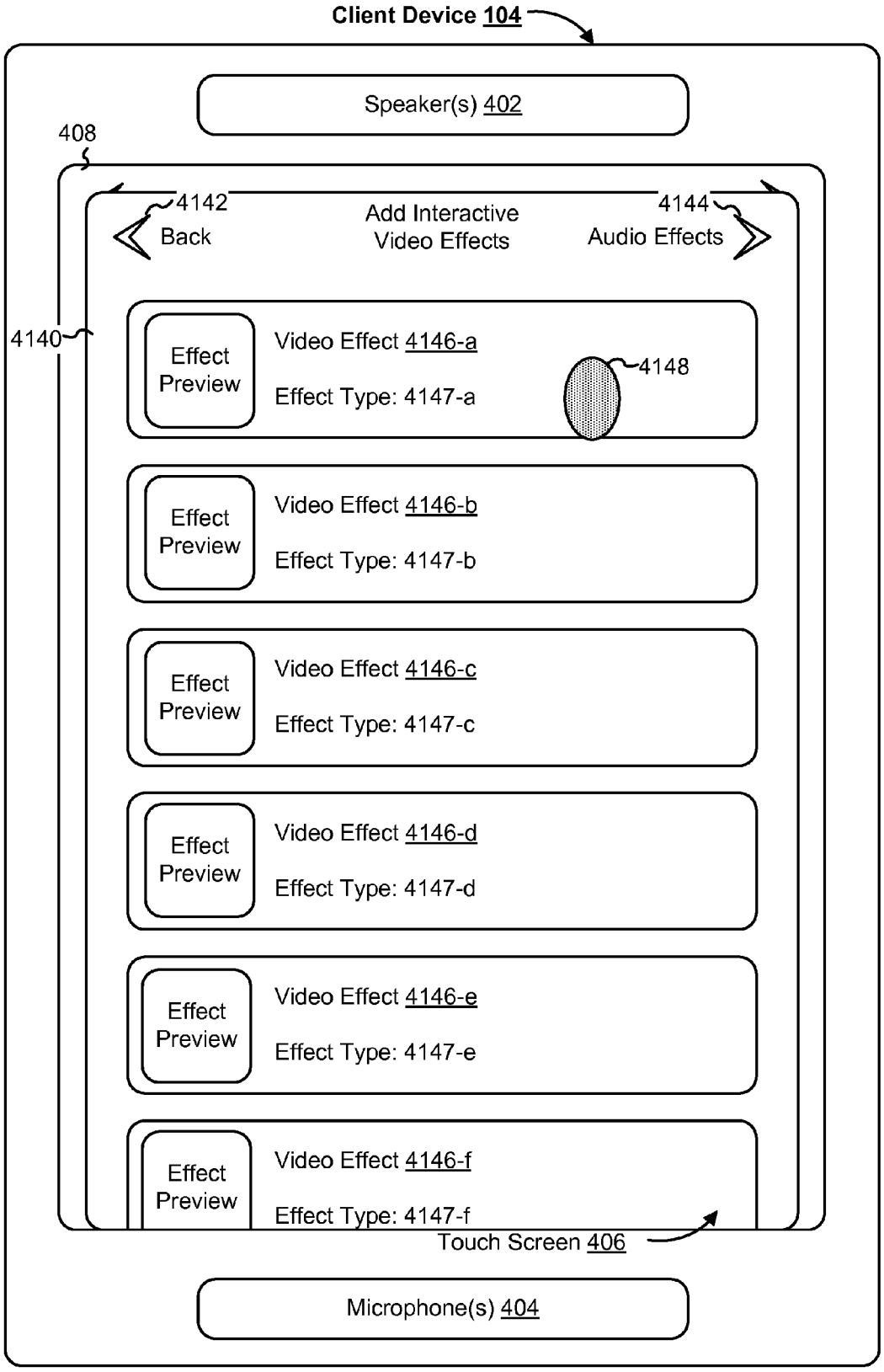
Client Device 104
Speaker(s) 402
408
4142
Back
Add Interactive Video Effects
4144
Audio Effects
4140
Effect Preview
Video Effect 4146-a
Effect Type: 4147-a
4148
Effect Preview
Video Effect 4146-b
Effect Type: 4147-b
Effect Preview
Video Effect 4146-c
Effect Type: 4147-c
Effect Preview
Video Effect 4146-d
Effect Type: 4147-d
Effect Preview
Video Effect 4146-e
Effect Type: 4147-e
Effect Preview
Video Effect 4146-f
Effect Type: 4147-f
Touch Screen 406
Microphone(s) 404

Figure 4X

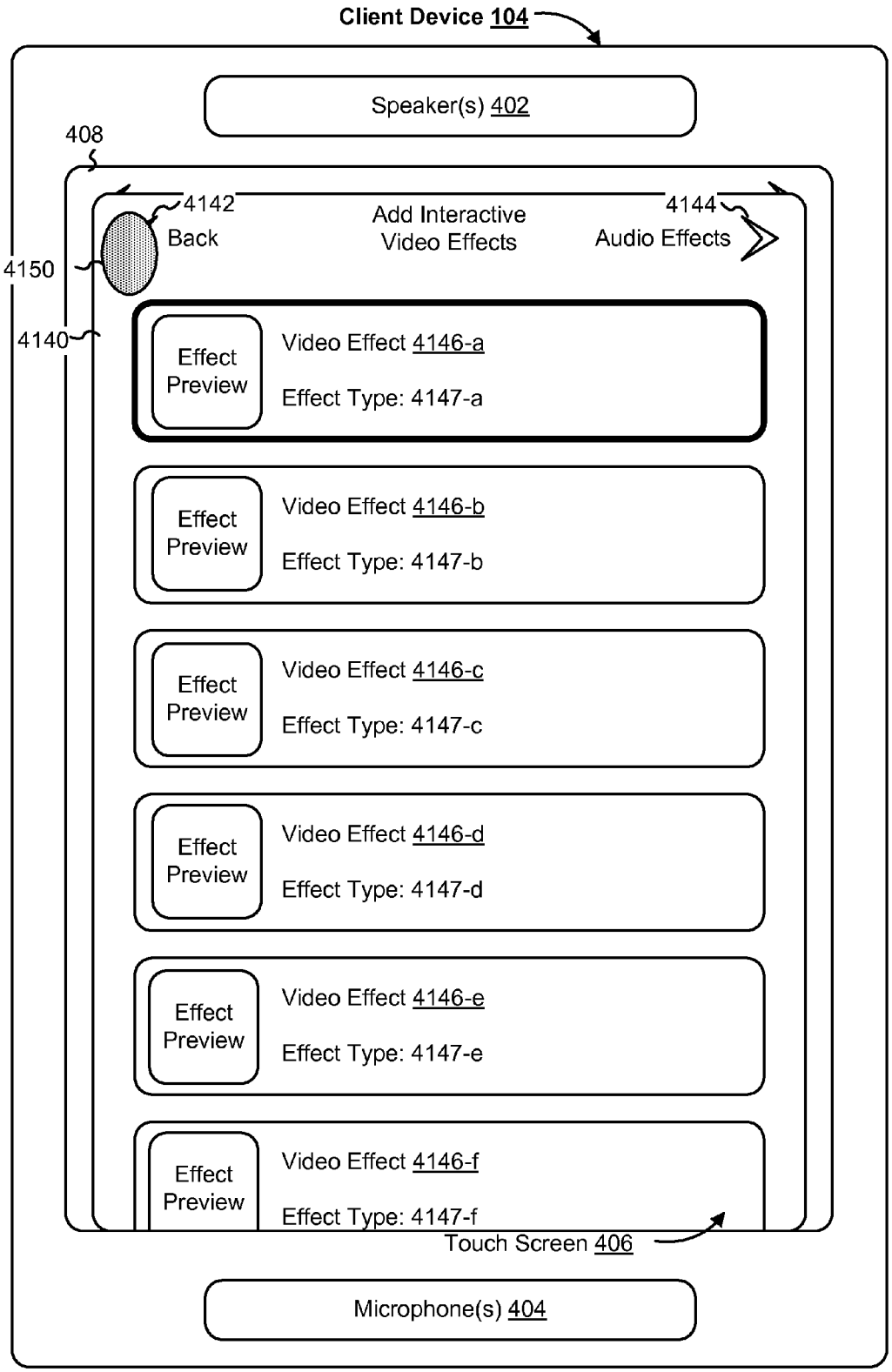
Client Device 104
Speaker(s) 402
408
4142
Back
Add Interactive Video Effects
4144
Audio Effects
4150
4140
Effect Preview
Video Effect 4146-a
Effect Type: 4147-a
Effect Preview
Video Effect 4146-b
Effect Type: 4147-b
Effect Preview
Video Effect 4146-c
Effect Type: 4147-c
Effect Preview
Video Effect 4146-d
Effect Type: 4147-d
Effect Preview
Video Effect 4146-e
Effect Type: 4147-e
Effect Preview
Video Effect 4146-f
Effect Type: 4147-f
Touch Screen 406
Microphone(s) 404

Figure 4Y

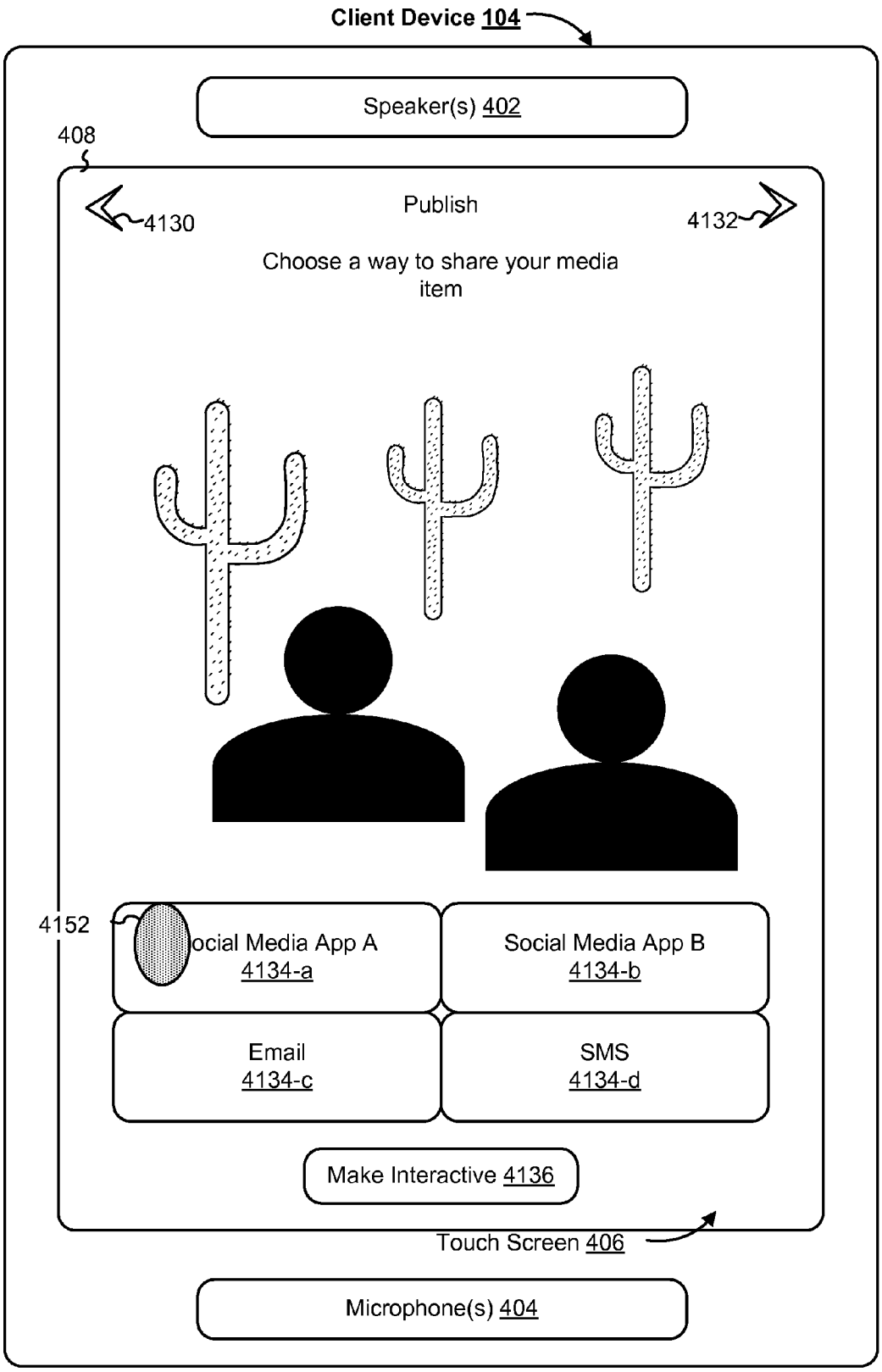
Client Device 104
Speaker(s) 402
408
Publish
4130
4132
Choose a way to share your media item
4152
Social Media App A 4134-a
Social Media App B 4134-b
Email 4134-c
SMS 4134-d
Make Interactive 4136
Touch Screen 406
Microphone(s) 404

Figure 4Z

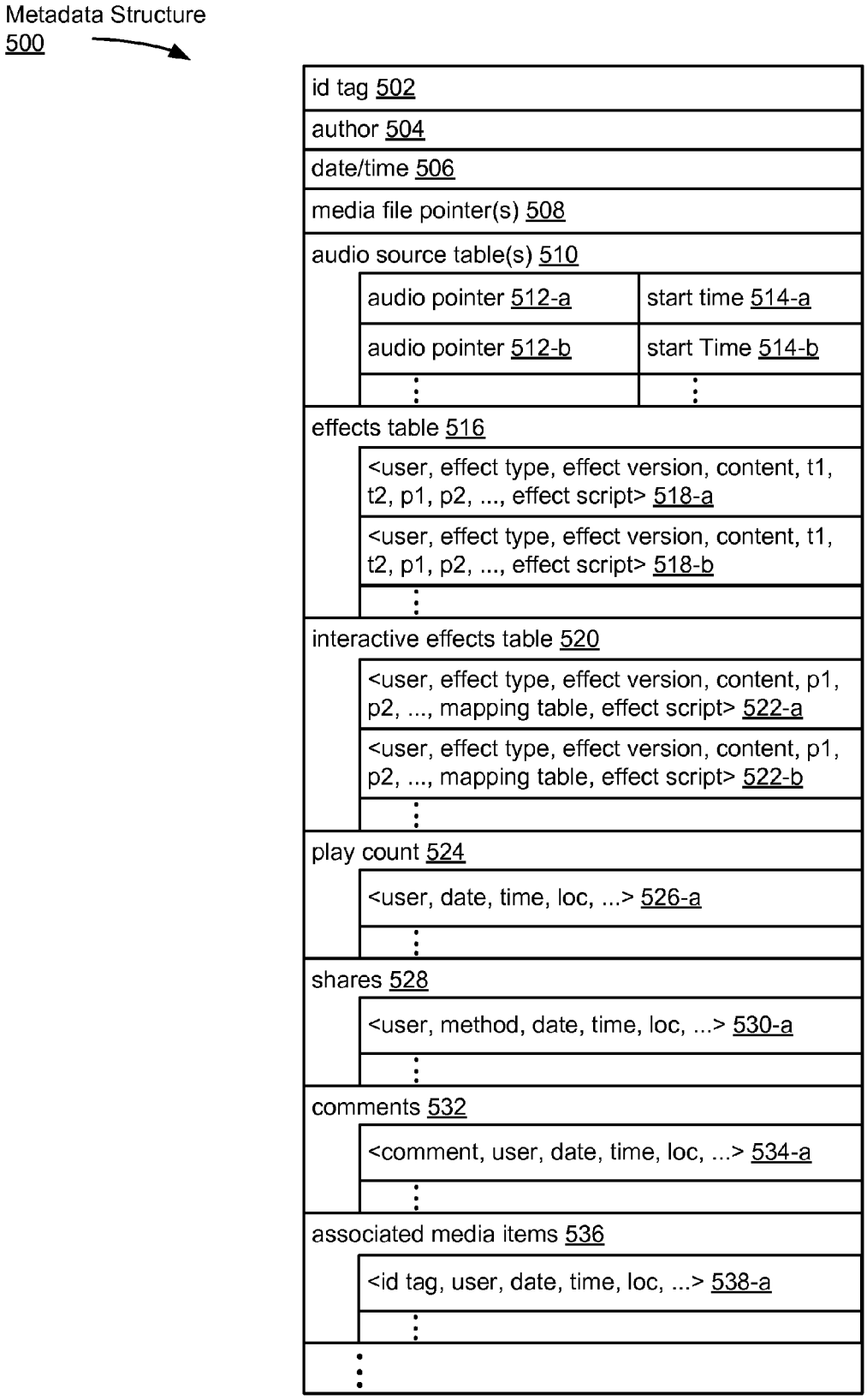
Metadata Structure
500
id tag 502
author 504
date/time 506
media file pointer(s) 508
audio source table(s) 510
audio pointer 512-a
start time 514-a
audio pointer 512-b
start Time 514-b
effects table 516
<user, effect type, effect version, content, t1, t2, p1, p2, ..., effect script> 518-a
<user, effect type, effect version, content, t1, t2, p1, p2, ..., effect script> 518-b
interactive effects table 520
<user, effect type, effect version, content, p1, p2, ..., mapping table, effect script> 522-a
<user, effect type, effect version, content, p1, p2, ..., mapping table, effect script> 522-b
play count 524
<user, date, time, loc, ...> 526-a
shares 528
<user, method, date, time, loc, ...> 530-a
comments 532
<comment, user, date, time, loc, ...> 534-a
associated media items 536
<id tag, user, date, time, loc, ...> 538-a

Figure 5

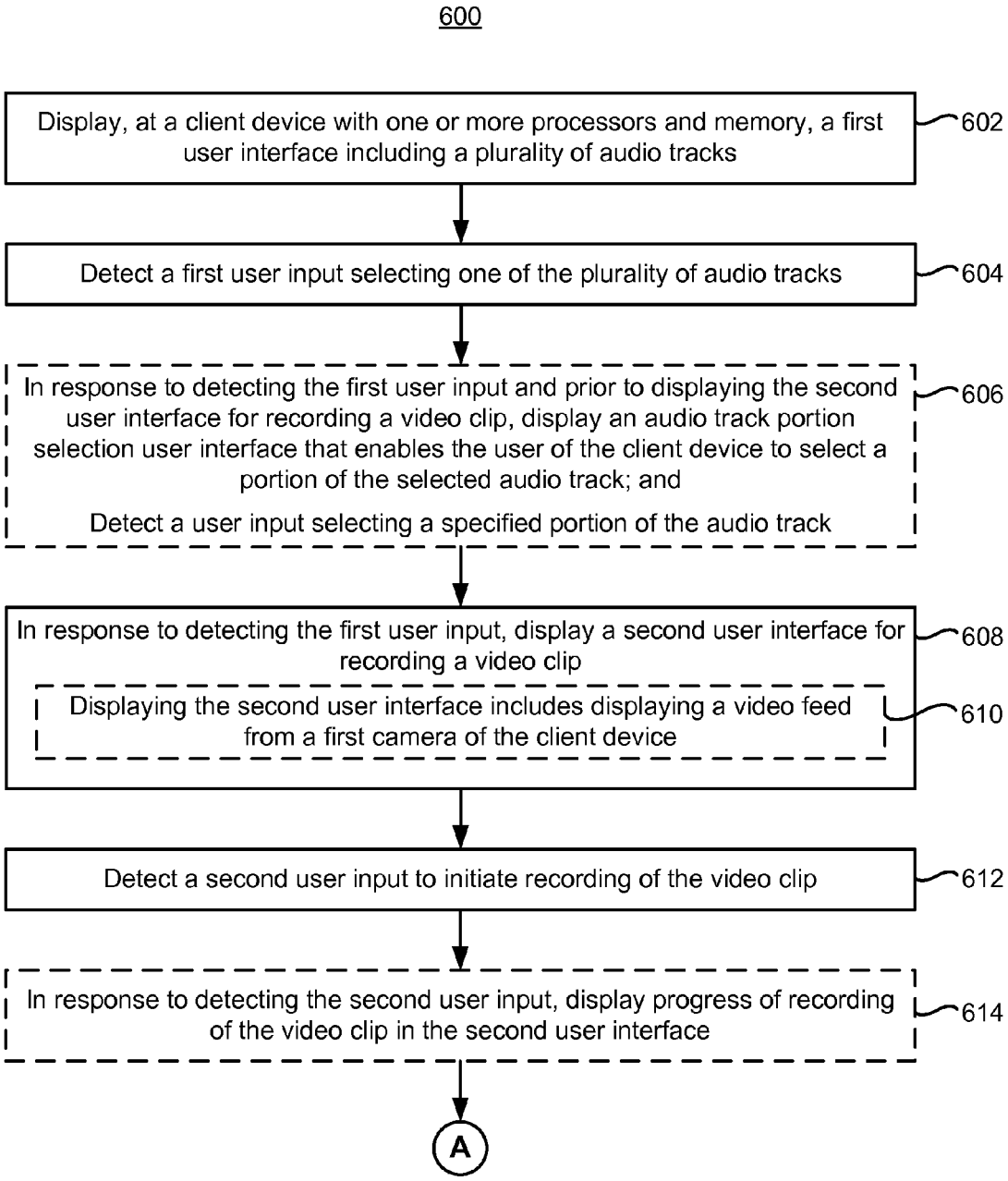
600
Display, at a client device with one or more processors and memory, a first user interface including a plurality of audio tracks
602
Detect a first user input selecting one of the plurality of audio tracks
604
In response to detecting the first user input and prior to displaying the second user interface for recording a video clip, display an audio track portion selection user interface that enables the user of the client device to select a portion of the selected audio track; and
Detect a user input selecting a specified portion of the audio track
606
In response to detecting the first user input, display a second user interface for recording a video clip
608
Displaying the second user interface includes displaying a video feed from a first camera of the client device
610
Detect a second user input to initiate recording of the video clip
612
In response to detecting the second user input, display progress of recording of the video clip in the second user interface
614
A

Figure 6A

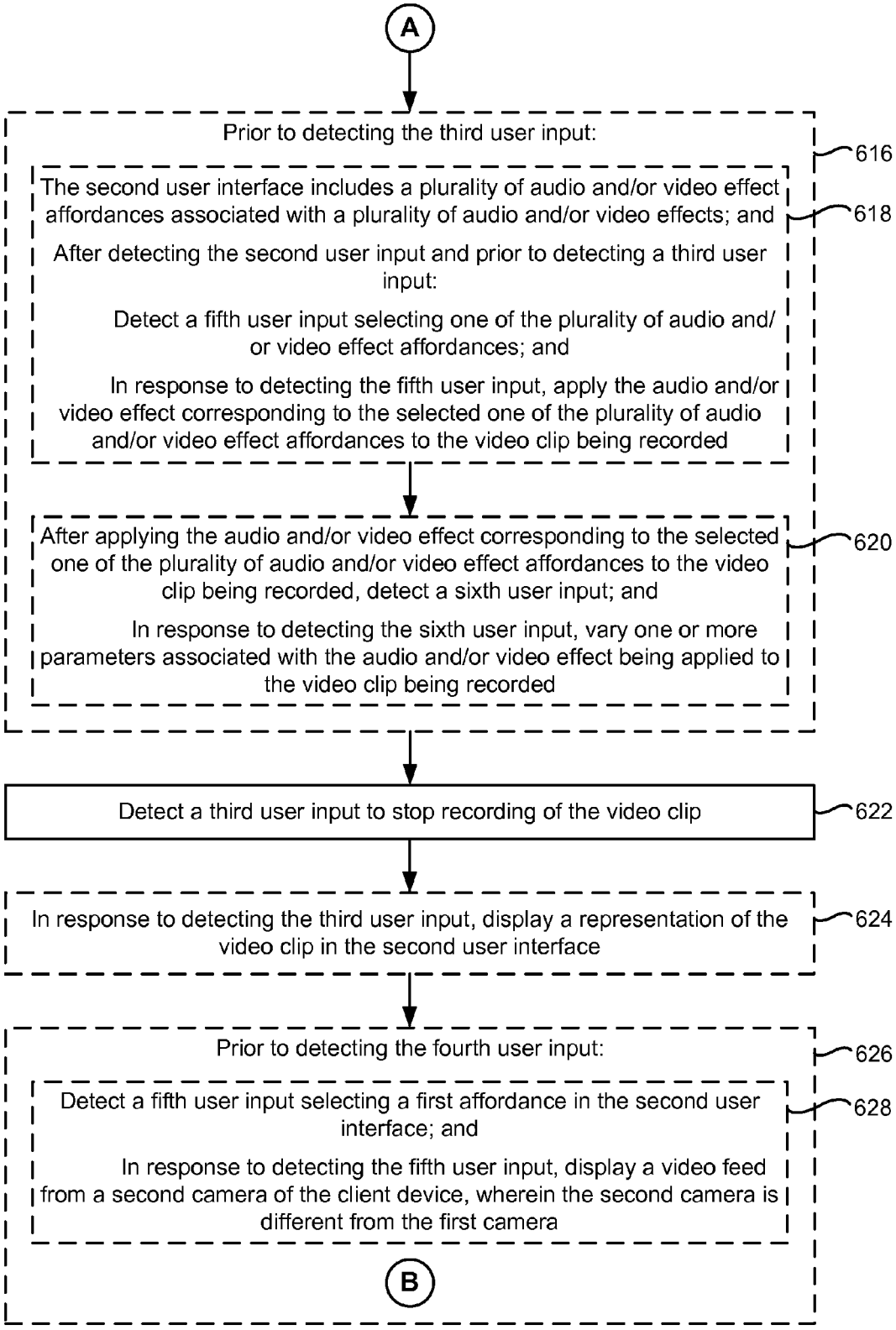
A
Prior to detecting the third user input:
616
The second user interface includes a plurality of audio and/or video effect affordances associated with a plurality of audio and/or video effects; and
618
After detecting the second user input and prior to detecting a third user input:
Detect a fifth user input selecting one of the plurality of audio and/or video effect affordances; and
In response to detecting the fifth user input, apply the audio and/or video effect corresponding to the selected one of the plurality of audio and/or video effect affordances to the video clip being recorded
After applying the audio and/or video effect corresponding to the selected one of the plurality of audio and/or video effect affordances to the video clip being recorded, detect a sixth user input; and
620
In response to detecting the sixth user input, vary one or more parameters associated with the audio and/or video effect being applied to the video clip being recorded
Detect a third user input to stop recording of the video clip
622
In response to detecting the third user input, display a representation of the video clip in the second user interface
624
Prior to detecting the fourth user input:
626
Detect a fifth user input selecting a first affordance in the second user interface; and
628
In response to detecting the fifth user input, display a video feed from a second camera of the client device, wherein the second camera is different from the first camera
B

Figure 6B

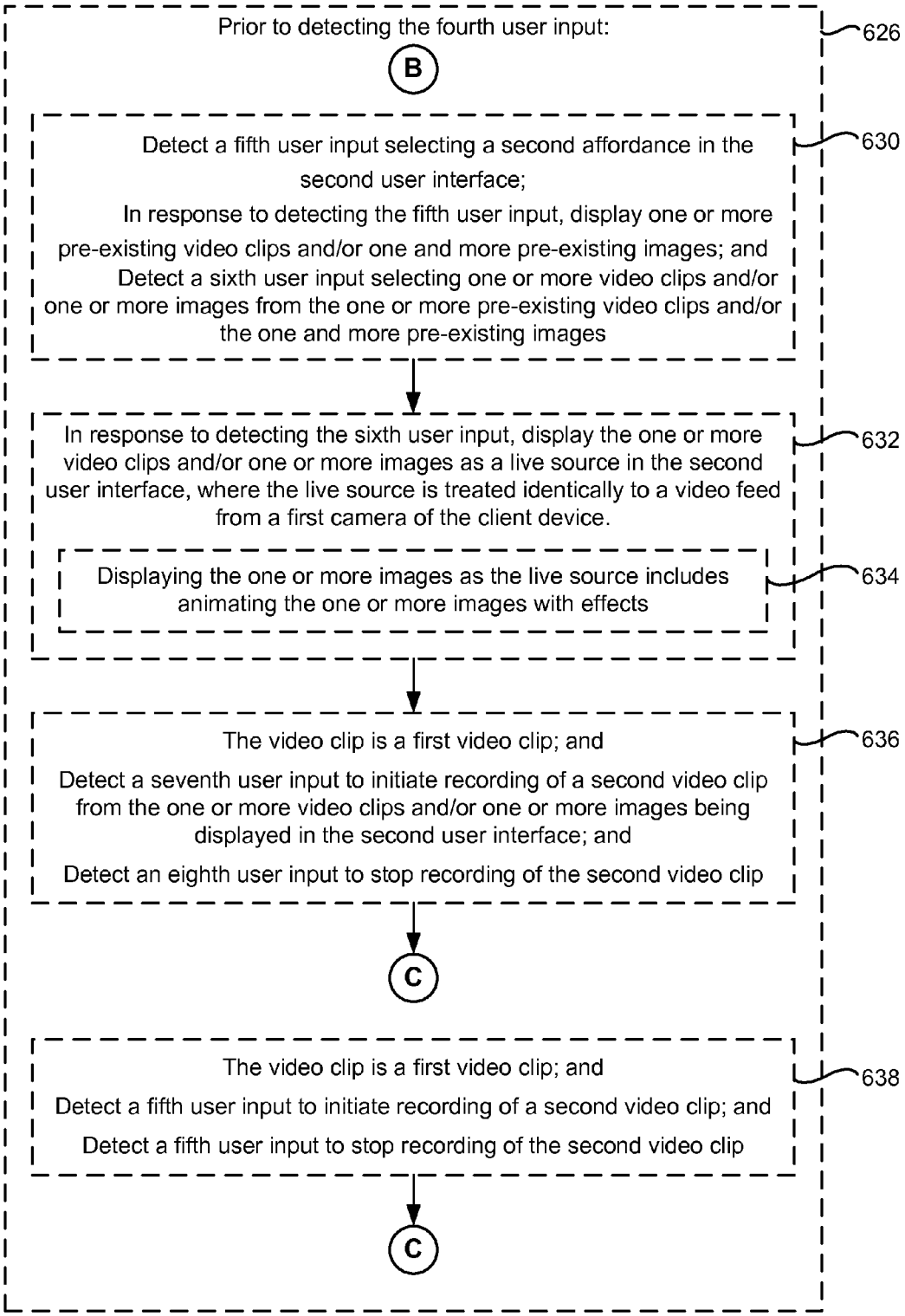
Prior to detecting the fourth user input:
626
B
Detect a fifth user input selecting a second affordance in the second user interface;
In response to detecting the fifth user input, display one or more pre-existing video clips and/or one and more pre-existing images; and
Detect a sixth user input selecting one or more video clips and/or one or more images from the one or more pre-existing video clips and/or the one and more pre-existing images
630
In response to detecting the sixth user input, display the one or more video clips and/or one or more images as a live source in the second user interface, where the live source is treated identically to a video feed from a first camera of the client device.
632
Displaying the one or more images as the live source includes animating the one or more images with effects
634
The video clip is a first video clip; and
Detect a seventh user input to initiate recording of a second video clip from the one or more video clips and/or one or more images being displayed in the second user interface; and
Detect an eighth user input to stop recording of the second video clip
636
C
The video clip is a first video clip; and
Detect a fifth user input to initiate recording of a second video clip; and
Detect a fifth user input to stop recording of the second video clip
638
C

Figure 6C

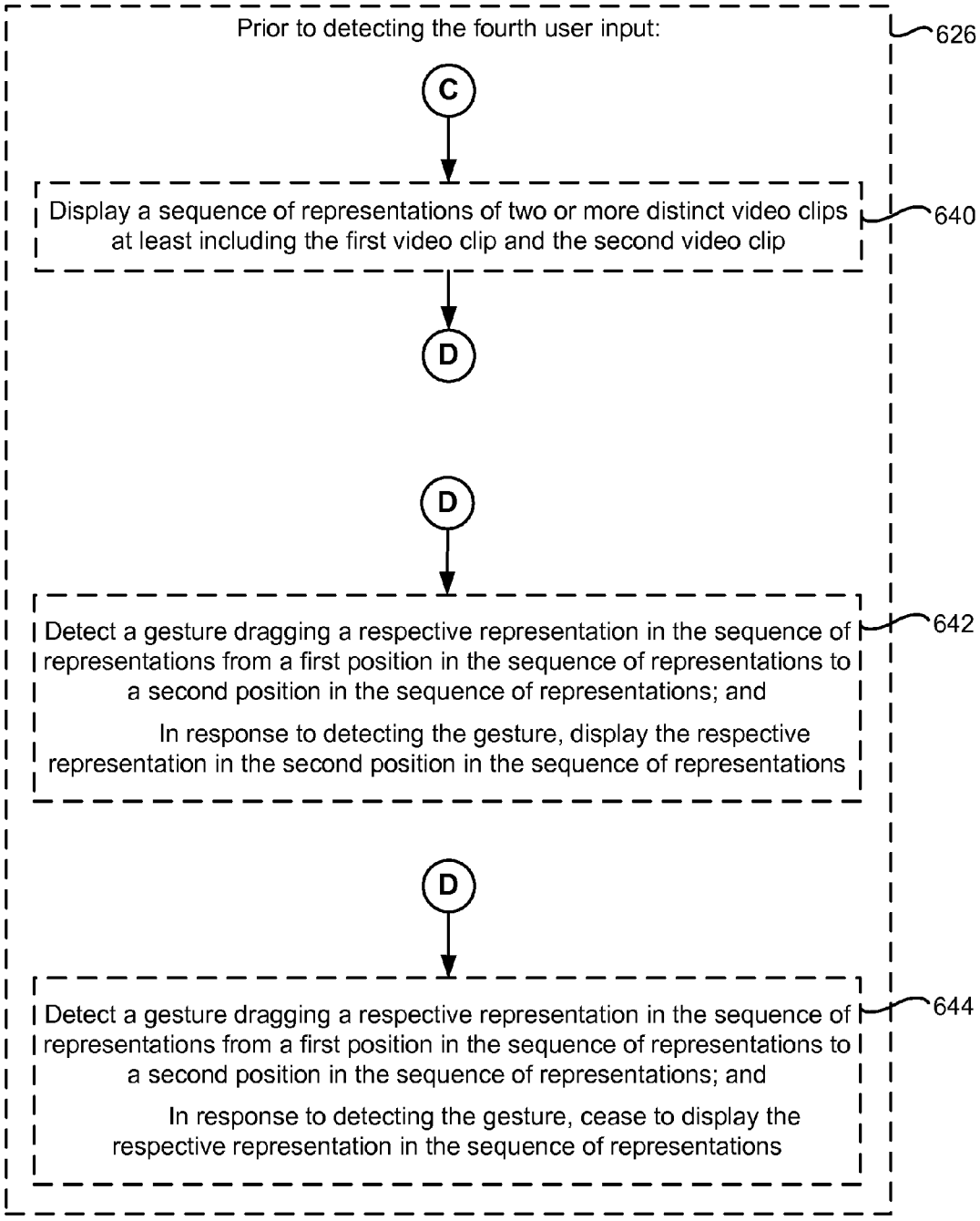
Prior to detecting the fourth user input:
626
C
Display a sequence of representations of two or more distinct video clips at least including the first video clip and the second video clip
640
D
D
Detect a gesture dragging a respective representation in the sequence of representations from a first position in the sequence of representations to a second position in the sequence of representations; and
In response to detecting the gesture, display the respective representation in the second position in the sequence of representations
642
D
Detect a gesture dragging a respective representation in the sequence of representations from a first position in the sequence of representations to a second position in the sequence of representations; and
In response to detecting the gesture, cease to display the respective representation in the sequence of representations
644

Figure 6D

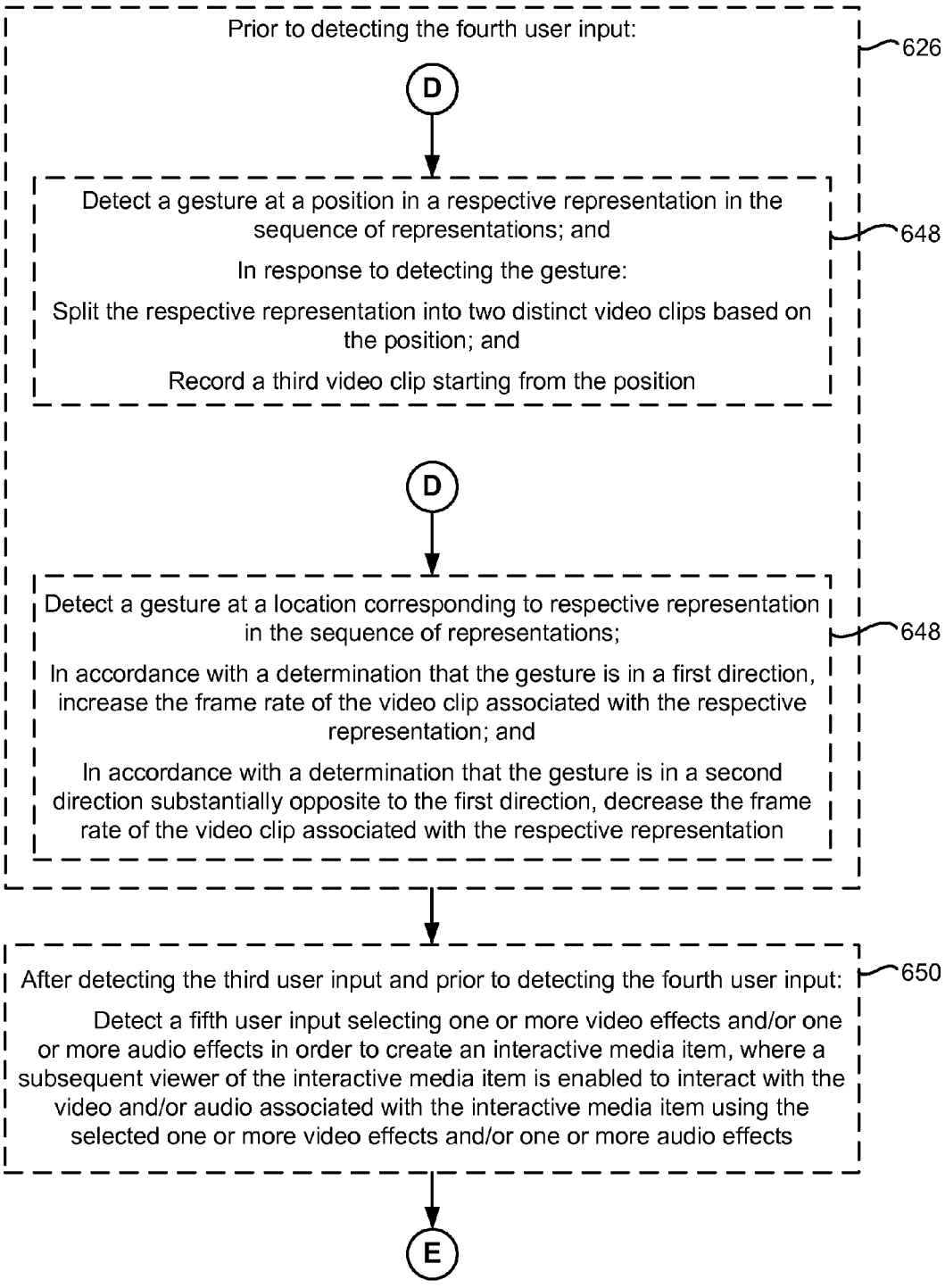
Prior to detecting the fourth user input:
626
D
Detect a gesture at a position in a respective representation in the sequence of representations; and
In response to detecting the gesture:
Split the respective representation into two distinct video clips based on the position; and
Record a third video clip starting from the position
648
D
Detect a gesture at a location corresponding to respective representation in the sequence of representations;
In accordance with a determination that the gesture is in a first direction, increase the frame rate of the video clip associated with the respective representation; and
In accordance with a determination that the gesture is in a second direction substantially opposite to the first direction, decrease the frame rate of the video clip associated with the respective representation
648
After detecting the third user input and prior to detecting the fourth user input:
Detect a fifth user input selecting one or more video effects and/or one or more audio effects in order to create an interactive media item, where a subsequent viewer of the interactive media item is enabled to interact with the video and/or audio associated with the interactive media item using the selected one or more video effects and/or one or more audio effects
650
E

Figure 6E

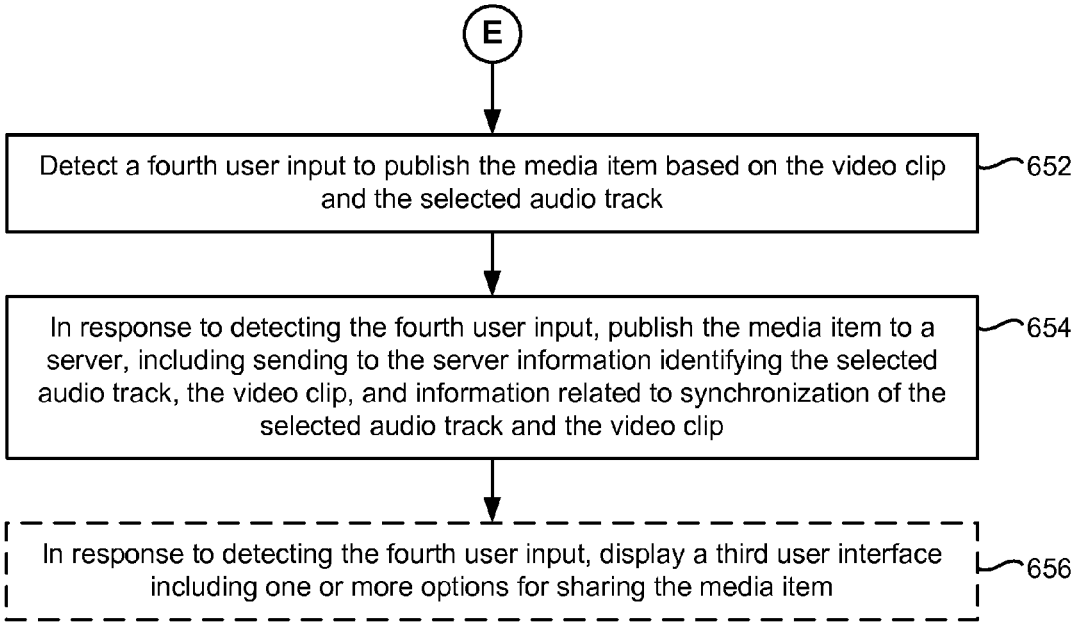
E
Detect a fourth user input to publish the media item based on the video clip and the selected audio track
652
In response to detecting the fourth user input, publish the media item to a server, including sending to the server information identifying the selected audio track, the video clip, and information related to synchronization of the selected audio track and the video clip
654
In response to detecting the fourth user input, display a third user interface including one or more options for sharing the media item
656

Figure 6F

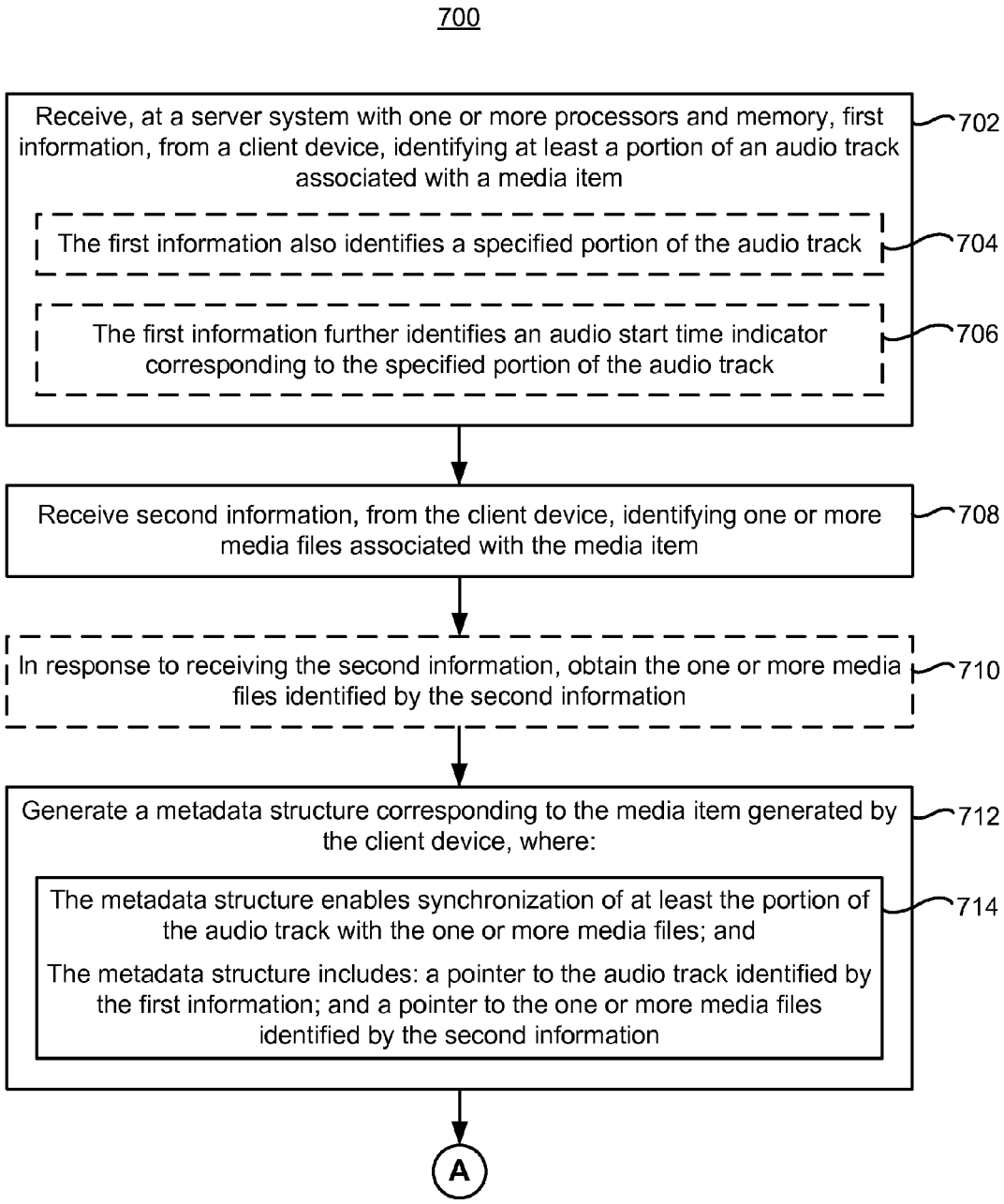
700
Receive, at a server system with one or more processors and memory, first information, from a client device, identifying at least a portion of an audio track associated with a media item
702
The first information also identifies a specified portion of the audio track
704
The first information further identifies an audio start time indicator corresponding to the specified portion of the audio track
706
Receive second information, from the client device, identifying one or more media files associated with the media item
708
In response to receiving the second information, obtain the one or more media files identified by the second information
710
Generate a metadata structure corresponding to the media item generated by the client device, where:
712
The metadata structure enables synchronization of at least the portion of the audio track with the one or more media files; and
The metadata structure includes: a pointer to the audio track identified by the first information; and a pointer to the one or more media files identified by the second information
714
A

Figure 7A

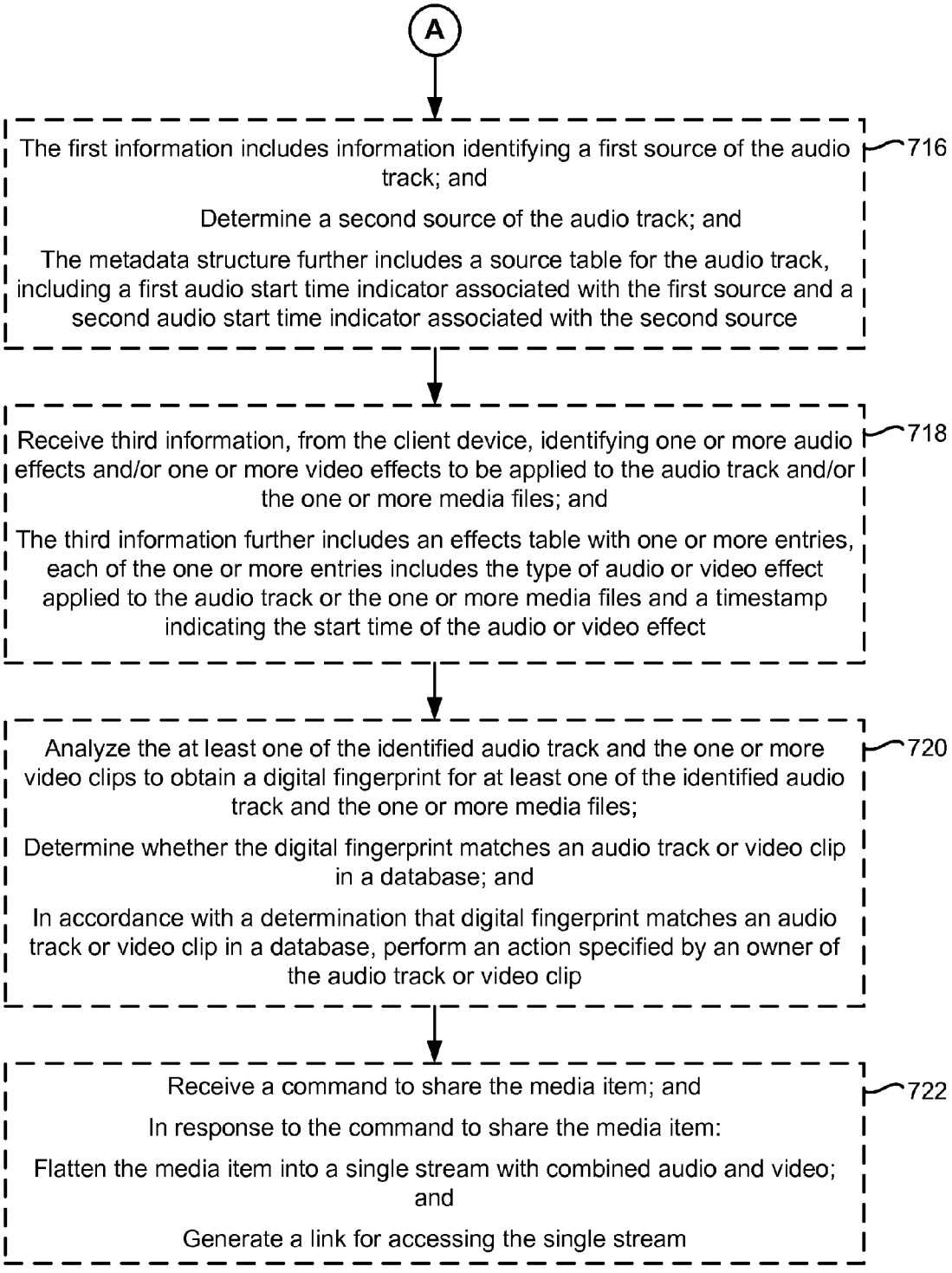
A
The first information includes information identifying a first source of the audio track; and
Determine a second source of the audio track; and
The metadata structure further includes a source table for the audio track, including a first audio start time indicator associated with the first source and a second audio start time indicator associated with the second source
716
Receive third information, from the client device, identifying one or more audio effects and/or one or more video effects to be applied to the audio track and/or the one or more media files; and
The third information further includes an effects table with one or more entries, each of the one or more entries includes the type of audio or video effect applied to the audio track or the one or more media files and a timestamp indicating the start time of the audio or video effect
718
Analyze the at least one of the identified audio track and the one or more video clips to obtain a digital fingerprint for at least one of the identified audio track and the one or more media files;
Determine whether the digital fingerprint matches an audio track or video clip in a database; and
In accordance with a determination that digital fingerprint matches an audio track or video clip in a database, perform an action specified by an owner of the audio track or video clip
720
Receive a command to share the media item; and
In response to the command to share the media item:
Flatten the media item into a single stream with combined audio and video; and
Generate a link for accessing the single stream
722

Figure 7B

METHODS AND DEVICES FOR TOUCH-BASED MEDIA CREATION

PRIORITY CLAIM AND RELATED APPLICATIONS

The present application claims priority to U.S. Provisional Patent Application No. 61/934,665, filed Jan. 31, 2014, which is hereby expressly incorporated herein by reference in its entirety.

This application is related to U.S. patent application Ser. No. 14/608,097, filed Jan. 28, 2015, entitled, "Methods and Devices for Synchronizing and Sharing Media Items," U.S. patent application Ser. No. 14/608,103, filed Jan. 28, 2015, entitled, "Methods and Devices for Presenting Interactive Media Items," U.S. patent application Ser. No. 14/608,105, filed Jan. 28, 2015, entitled, "Methods and Devices for Modifying Pre-Existing Media Items," and U.S. patent application Ser. No. 14/608,108, filed Jan. 28, 2015, entitled, "Methods and Devices for Generating Media Items," which are hereby incorporated by reference in their entirety.

TECHNICAL FIELD

The present invention relates to the field of Internet technologies, and more particularly to touch-based creation of a media item.

BACKGROUND OF THE INVENTION

As wireless networks and the processing power of mobile devices have improved, web-based applications increasingly allow everyday users to create original content in real-time without professional software. For example, Instagram and Vine allow a user to create original media content that is personalized to the user's tastes—anytime and anywhere. Despite the advances in the provision of web-based media creation applications, some solutions for creating media content are clumsy or ill-suited to future improvements in provisioning media content.

SUMMARY

Various implementations of methods and devices within the scope of the appended claims each have several aspects, no single one of which is solely responsible for the attributes described herein. Without limiting the scope of the appended claims, after considering this disclosure, and particularly after considering the section entitled "Detailed Description" one will understand how the aspects of various implementations are used to generate a media item.

In some embodiments, a client-side method of generating a media item is performed at a client device (e.g., client device **104**, FIGS. **1-2**) with one or more processors and memory. The method includes displaying a first user interface including a plurality of audio tracks. The method also includes: detecting a first user input selecting one of the plurality of audio tracks; and in response to detecting the first user input, displaying a second user interface for recording a video clip. The method also includes: detecting a second user input to initiate recording of the video clip; and detecting a third user input to stop recording of the video clip. The method further includes: detecting a fourth user input to publish the media item based on the video clip and the selected audio track; and in response to detecting the fourth user input, publishing the media item to a server, including sending to the server information identifying the selected audio track, the video clip, and information related to synchronization of the selected audio track and the video clip.

In some embodiments, a server-side method of generating a media item is performed at a server system (e.g., server system **108**, FIGS. **1** and **3**) with one or more processors and memory. The method includes: receiving first information, from a client device, identifying at least a portion of an audio track associated with the media item; and receiving second information, from the client device, identifying one or more media files associated with the media item. The method also includes generating a metadata structure corresponding to the media item generated by the client device, where: the metadata structure enables synchronization of at least the portion of the audio track with the one or more media files; and the metadata structure includes: a pointer to the audio track identified by the first information; and a pointer to the one or more media files identified by the second information.

In some embodiments, an electronic device or a computer system (e.g., client device **104**, FIGS. **1-2** or server system **108**, FIGS. **1** and **3**) includes one or more processors and memory storing one or more programs for execution by the one or more processors, the one or more programs include instructions for performing the operations of the methods described herein. In some embodiments, a non-transitory computer readable storage medium storing one or more programs, the one or more programs comprising instructions, which, when executed by an electronic device or a computer system (e.g., client device **104**, FIGS. **1-2** or server system **108**, FIGS. **1** and **3**) with one or more processors, cause the electronic device or computer system to perform the operations of the methods described herein.

BRIEF DESCRIPTION OF THE DRAWINGS

So that the present disclosure can be understood in greater detail, a more particular description may be had by reference to the features of various implementations, some of which are illustrated in the appended drawings. The appended drawings, however, merely illustrate the more pertinent features of the present disclosure and are therefore not to be considered limiting, for the description may admit to other effective features.

FIG. **1** is a block diagram of a server-client environment in accordance with some embodiments.

FIG. **2** is a block diagram of a client device in accordance with some embodiments.

FIG. **3** is a block diagram of a server system in accordance with some embodiments.

FIGS. **4A-4Z** illustrate example user interfaces for generating media items in accordance with some embodiments.

FIG. **5** is a diagram of a representative metadata structure for a respective media item in accordance with some embodiments.

FIGS. **6A-6F** illustrate a flowchart representation of a client-side method of generating a media item in accordance with some embodiments.

FIGS. **7A-7B** illustrate a flowchart representation of a server-side method of generating a media item in accordance with some embodiments.

In accordance with common practice the various features illustrated in the drawings may not be drawn to scale. Accordingly, the dimensions of the various features may be arbitrarily expanded or reduced for clarity. In addition, some of the drawings may not depict all of the components of a given

system, method or device. Finally, like reference numerals may be used to denote like features throughout the specification and figures.

DETAILED DESCRIPTION

Numerous details are described herein in order to provide a thorough understanding of the example implementations illustrated in the accompanying drawings. However, some embodiments may be practiced without many of the specific details, and the scope of the claims is only limited by those features and aspects specifically recited in the claims. Furthermore, well-known methods, components, and circuits have not been described in exhaustive detail so as not to unnecessarily obscure more pertinent aspects of the implementations described herein.

As shown in FIG. **1**, an application for generating, exploring, and presenting media items is implemented in a server-client environment **100** in accordance with some embodiments. In some embodiments, the application includes client-side processing **102-1**, **102-2** (hereinafter "client-side module **102**") executed on a client device **104-1**, **104-2** and server-side processing **106** (hereinafter "server-side module **106**") executed on a server system **108**. Client-side module **102** communicates with server-side module **106** through one or more networks **110**. Client-side module **102** provides client-side functionalities associated with the application (e.g., creation and presentation of media items) such as client-facing input and output processing and communications with server-side module **106**. Server-side module **106** provides server-side functionalities associated with the application (e.g., generating metadata structures for, storing portions of, and causing/directing presentation of media items) for any number of client modules **102** each residing on a respective client device **104**.

In some embodiments, server-side module **106** includes one or more processors **112**, media files database **114**, media item metadata database **116**, an I/O interface to one or more clients **118**, and an I/O interface to one or more external services **120**. I/O interface to one or more clients **118** facilitates the client-facing input and output processing for server-side module **106**. One or more processors **112** receive requests from client-side module **102** to create media items or obtain media items for presentation. Media files database **114** stores media files, such as images and/or video clips, associated with media items, and media item metadata database **116** stores a metadata structure for each media item, where each metadata structure associates one or more media files and at least a portion of an audio track with a media item. In some embodiments, media files database **114** and media item metadata database **116** are communicatively coupled with but located remotely from server system **116**. In some embodiments, media files database **114** and media item metadata database **116** are located separately from one another. In some embodiments, server-side module **106** communicates with one or more external services such as audio sources **124***a* . . . **124***n* (e.g., streaming audio service providers such as Spotify, SoundCloud, Rdio, Pandora, and the like) and media file sources **126***a* . . . **126***n* (e.g., service providers of images and/or video such as YouTube, Vimeo, Vine, Flickr, Imgur, and the like) through one or more networks **110**. I/O interface to one or more external services **120** facilitates such communications.

Examples of client device **104** include, but are not limited to, a handheld computer, a wearable computing device (e.g., Google Glass or a smart watch), a biologically implanted computing device, a personal digital assistant (PDA), a tablet computer, a laptop computer, a desktop computer, a cellular telephone, a smart phone, an enhanced general packet radio service (EGPRS) mobile phone, a media player, a navigation device, a game console, a television, a remote control, or a combination of any two or more of these data processing devices or other data processing devices.

Examples of one or more networks **110** include local area networks ("LAN") and wide area networks ("WAN") such as the Internet. One or more networks **110** are, optionally, implemented using any known network protocol, including various wired or wireless protocols, such as Ethernet, Universal Serial Bus (USB), FIREWIRE, Global System for Mobile Communications (GSM), Enhanced Data GSM Environment (EDGE), code division multiple access (CDMA), time division multiple access (TDMA), Bluetooth, Wi-Fi, voice over Internet Protocol (VoIP), Wi-MAX, or any other suitable communication protocol.

In some embodiments, server system **108** is managed by the provider of the application for generating, exploring, and presenting media items. Server system **108** is implemented on one or more standalone data processing apparatuses or a distributed network of computers. In some embodiments, server system **108** also employs various virtual devices and/or services of third party service providers (e.g., third-party cloud service providers) to provide the underlying computing resources and/or infrastructure resources of server system **108**.

Although server-client environment **100** shown in FIG. **1** includes both a client-side portion (e.g., client-side module **102**) and a server-side portion (e.g., server-side module **106**), in some embodiments, the application is implemented as a standalone application installed on client device **104**. In addition, the division of functionalities between the client and server portions can vary in different embodiments. For example, in some embodiments, client-side module **102** is a thin-client that provides only user-facing input and output processing functions, and delegates all other data processing functionalities to a backend server (e.g., server system **108**).

FIG. **2** is a block diagram illustrating a representative client device **104** associated with a user in accordance with some embodiments. Client device **104**, typically, includes one or more processing units (CPUs) **202**, one or more network interfaces **204**, memory **206**, and one or more communication buses **208** for interconnecting these components (sometimes called a chipset). Client device **104** also includes a user interface **210**. User interface **210** includes one or more output devices **212** that enable presentation of media content, including one or more speakers and/or one or more visual displays. User interface **210** also includes one or more input devices **214**, including user interface components that facilitate user input such as a keyboard, a mouse, a voice-command input unit or microphone, an accelerometer, a gyroscope, a touch-screen display, a touch-sensitive input pad, a gesture capturing camera, or other input buttons or controls. Furthermore, some client devices **104** use a microphone and voice recognition, a camera and gesture recognition, a brainwave sensor/display, or biologically implanted sensors/displays (e.g. digital contact lenses, fingertip/muscle implants, and so on) to supplement or replace the keyboard, display, or touch screen. Memory **206** includes high-speed random access memory, such as DRAM, SRAM, DDR RAM, or other random access solid state memory devices; and, optionally, includes non-volatile memory, such as one or more magnetic disk storage devices, optical disk storage devices, flash memory devices, or other non-volatile solid state storage devices. Memory **206**, optionally, includes one or more storage devices remotely located from one or more processing units **202**. Memory **206**,

or alternatively the non-volatile memory device(s) within memory **206**, includes a non-transitory computer readable storage medium. In some implementations, memory **206**, or the non-transitory computer readable storage medium of memory **206**, stores the following programs, modules, and data structures, or a subset or superset thereof:

- operating system **216** including procedures for handling various basic system services and for performing hardware dependent tasks;
- network communication module **218** for connecting user device **104** to other computing devices (e.g., server system **108**, audio sources **124***a* . . . **124***n*, and media file sources **126***a* . . . **126***n*) connected to one or more networks **110** via one or more network interfaces **204** (wired or wireless);
- presentation module **220** for enabling presentation of information (e.g., a media item, a user interface for an application or a webpage, audio and/or video content, text, etc.) at client device **104** via one or more output devices **212** (e.g., displays, speakers, etc.) associated with user interface **210**; and
- input processing module **222** for detecting one or more user inputs or interactions from one of the one or more input devices **214** and interpreting the detected input or interaction.

In some embodiments, memory **206** also includes a client-side module **102** associated with an application for creating, exploring, and playing back media items that includes, but is not limited to:

- displaying module **224** for displaying user interfaces of the application;
- detecting module **226** for detecting one or more user inputs corresponding to the application;
- recording module **228** for recording live and/or pre-existing video clips and/or images for a media item;
- editing module **230** for reordering, deleting, and otherwise editing video clips in a media item prior to publishing the media item;
- effects module **232** for applying video and/or audio effects to the media item prior to publishing the media item;
- preview module **234** for presenting at least a portion of the media item prior to publishing the media item;
- publishing module **236** for causing the media item to be published by at least sending, to server system **108**, first information identifying at least a portion of an audio track associated with the media item and second information identifying one or more media files associated with the media item; and
- sharing module **238** for sharing the media item via one or more sharing methods (e.g., email, SMS, social media outlets, etc.).

In some embodiments, memory **206** also includes client data **250** for storing data for the application. Client data **250** includes, but is not limited to:

- video library **252** storing one or more pre-existing video clips recorded prior to executing the application;
- image library **254** storing one or more pre-existing images captured prior to executing the application;
- audio library **256** storing one or more pre-existing audio tracks created or stored prior to executing the application;
- effects library **258** including functions for implementing one or more real-time or post-processed audio and/or video effects (e.g., OpenGL Shading Language (GLSL) shaders); and
- user profile **260** including a plurality of preferences associated with the application for the user of client device **104**.

Each of the above identified elements may be stored in one or more of the previously mentioned memory devices, and corresponds to a set of instructions for performing a function described above. The above identified modules or programs (i.e., sets of instructions) need not be implemented as separate software programs, procedures, modules or data structures, and thus various subsets of these modules may be combined or otherwise re-arranged in various implementations. In some implementations, memory **206**, optionally, stores a subset of the modules and data structures identified above. Furthermore, memory **206**, optionally, stores additional modules and data structures not described above.

FIG. **3** is a block diagram illustrating server system **108** in accordance with some embodiments. Server system **108**, typically, includes one or more processing units (CPUs) **112**, one or more network interfaces **304** (e.g., including I/O interface to one or more clients **118** and I/O interface to one or more external services **120**), memory **306**, and one or more communication buses **308** for interconnecting these components (sometimes called a chipset). Memory **306** includes high-speed random access memory, such as DRAM, SRAM, DDR RAM, or other random access solid state memory devices; and, optionally, includes non-volatile memory, such as one or more magnetic disk storage devices, optical disk storage devices, flash memory devices, or other non-volatile solid state storage devices. Memory **306**, optionally, includes one or more storage devices remotely located from one or more processing units **112**. Memory **306**, or alternatively the non-volatile memory device(s) within memory **306**, includes a non-transitory computer readable storage medium. In some implementations, memory **306**, or the non-transitory computer readable storage medium of memory **306**, stores the following programs, modules, and data structures, or a subset or superset thereof:

- operating system **310** including procedures for handling various basic system services and for performing hardware dependent tasks;
- network communication module **312** that is used for connecting server system **108** to other computing devices (e.g., client devices **104**, audio sources **124***a* . . . **124***n*, and media file sources **126***a* . . . **126***n*) connected to one or more networks **110** via one or more network interfaces **304** (wired or wireless);
- a server-side module **106** associated with the application for generating, exploring, and presenting media items that includes but is not limited to:
  - receiving module **314** for at least receiving, from client device **104**, first information identifying at least a portion of an audio track for a new media item and second information identifying one or more media files (e.g., video clips or images) associated with the new media item;
  - generating module **316** for generating a metadata structure corresponding to the new media item;
  - downloading module **318** for downloading the one or more media files associated with the new media item;
  - effects module **320** for receiving and transmitting video and/or audio effects as scripts or computer-readable instructions (e.g., GLSL shaders for use with OpenGL ES) augmented with effect metadata corresponding to effect type, effect version, content, effect parameters, and so on;

analyzing module **322** for analyzing the audio track and the one or more media files associated with the new media item;

determining module **324** for determining whether the analyzed audio track and one or more media files match one of the reference audio tracks and video clips in reference database **332**;

performing module **326** for performing a specified action in accordance with a determination that the analyzed audio track and one or more media files match one of the reference audio tracks and video clips in reference database **332**; and

modifying module **328** for flattening the new media item into a single stream or digital media item or for re-encoding media items for different formats and bit rates; and

server data **330**, including but not limited to:

media files database **114** storing one or more media files (e.g., images and/or video clips);

media item metadata database **116** storing a metadata structure for each media item, where each metadata structure associates one or more media files and at least a portion of an audio track with a respective media item;

effects database **332** storing one or more real-time or post-processed audio and/or video effects as scripts or computer-readable instructions (e.g., GLSL shaders for use with OpenGL ES) augmented with effect metadata corresponding to effect type, effect version, content, effect parameters, a table mapping of interactive input modalities to effect parameters for real-time effect interactivity, and so on; and

reference database **334** storing a plurality of reference audio tracks and video clips and associated preferences.

Each of the above identified elements may be stored in one or more of the previously mentioned memory devices, and corresponds to a set of instructions for performing a function described above. The above identified modules or programs (i.e., sets of instructions) need not be implemented as separate software programs, procedures, or modules, and thus various subsets of these modules may be combined or otherwise re-arranged in various implementations. In some implementations, memory **306**, optionally, stores a subset of the modules and data structures identified above. Furthermore, memory **306**, optionally, stores additional modules and data structures not described above.

Attention is now directed towards embodiments of user interfaces and associated processes that may be implemented on a respective client device **104** with one or more speakers **402** enabled to output sound, zero or more microphones **404** enabled to receive sound input, and a touch screen **406** enabled to receive one or more contacts and display information (e.g., media content, webpages and/or user interfaces for an application). FIGS. **4**A-**4**Z illustrate example user interfaces for generating a media item in accordance with some embodiments.

Although some of the examples that follow will be given with reference to inputs on touch screen **406** (where the touch sensitive surface and the display are combined), in some embodiments, the device detects inputs on a touch-sensitive surface that is separate from the display. In some embodiments, the touch sensitive surface has a primary axis that corresponds to a primary axis on the display. In accordance with these embodiments, the device detects contacts with the touch-sensitive surface at locations that correspond to respective locations on the display. In this way, user inputs detected by the device on the touch-sensitive surface are used by the device to manipulate the user interface on the display of the device when the touch-sensitive surface is separate from the display. It should be understood that similar methods are, optionally, used for other user interfaces described herein.

Additionally, while the following examples are given primarily with reference to finger inputs (e.g., finger contacts, finger tap gestures, finger swipe gestures, etc.), it should be understood that, in some embodiments, one or more of the finger inputs are replaced with input from another input device (e.g., a mouse based input or stylus input). For example, a swipe gesture is, optionally, replaced with a mouse click (e.g., instead of a contact) followed by movement of the cursor along the path of the swipe (e.g., instead of movement of the contact). As another example, a tap gesture is, optionally, replaced with a mouse click while the cursor is located over the location of the tap gesture (e.g., instead of detection of the contact followed by ceasing to detect the contact). Similarly, when multiple user inputs are simultaneously detected, it should be understood that multiple computer mice are, optionally, used simultaneously, or a mouse and finger contacts are, optionally, used simultaneously.

FIGS. **4**A-**4**Z show user interfaces **408** displayed on client device **104** (e.g., a mobile phone) for an application for generating, exploring, and presenting media items; however, one skilled in the art will appreciate that the user interfaces shown in FIGS. **4**A-**4**Z may be implemented on other similar computing devices. The user interfaces in FIGS. **4**A-**4**Z are used to illustrate the processes described herein, including the processes described with respect to FIGS. **6**A-**6**F.

FIG. **4**A illustrates client device **104** displaying a first user interface of a process for generating a media item on touch screen **406**. In FIG. **4**A, the first user interface prompts the user of client device **104** to choose an audio track for the media item. In FIG. **4**A, the user interface includes search query box **414** for searching for audio tracks and a plurality of audio track affordances **416** corresponding to audio tracks. In some embodiments, audio track affordances **416** corresponding to sponsored audio tracks are displayed at the top or near the top of the feed of first user interface. In some embodiments, each audio track affordance **416** includes album cover art or an associated image, artist name, and track title for the corresponding audio track. In FIG. **4**A, each audio track affordance **416** includes a source indicator **418**. For example, source indicator **418**-*a* displays an "L" indicating that the audio track corresponding to audio track affordance **416**-*a* is available locally (i.e., stored at client device **104**), and source indicator **418**-*c* displays an "S" indicating that the audio track corresponding to audio track affordance **416**-*c* is available via a streaming audio service provider. In FIG. **4**A, back navigation affordance **410**, when activated (e.g., by a touch input from the user), causes client device **104** to display a previous user interface (e.g., a home screen for the application). In FIG. **4**A, scroll bar **412** indicates that the balance of the audio tracks can be viewed by scrolling downwards. FIG. **4**A also illustrates detecting contact **420** (e.g., a tap gesture) on touch screen **406** at a location corresponding to audio track affordance **416**-*c*.

FIG. **4**B illustrates client device **104** displaying a next user interface of the process for generating the media item on touch screen **406**. In FIG. **4**B, the user interface prompts the user of client device **104** to choose a portion of the audio track (e.g., the audio track corresponding to audio track affordance **416**-*c*) in response to detecting contact **420** selecting audio track affordance **416**-*c* in FIG. **4**A. In FIG. **4**B, the user interface includes album cover art 426, audio track information **428**, and a waveform **430** for the audio track correspond-

ing to audio track affordance **416**-*c*. For example, audio track information **428** includes artist name(s), track title, the number of media items created with the audio track, and hashtags associated with the audio track corresponding to audio track affordance **416**-*c*.

In FIG. **4**B, waveform **430** optionally includes an end indicator **434** for selected portion **436** of the audio track corresponding to audio track affordance **416**-*c*. For example, end indicator **434** defaults to the 30 second point in the audio track based on a predetermined or default audio portion size of 30 seconds. In FIG. **4**B, the user interface also includes back navigation affordance **422**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display the previous user interface (e.g., the user interface in FIG. **4**A), forward navigation affordance **424**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display a next user interface (e.g., the user interface in FIG. **4**D) of the process for generating the media item, and continue affordance **432**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display the next user interface (e.g., the user interface in FIG. **4**D) of the process for generating the media item. FIG. **4**B further illustrates detecting a left-to-right dragging gesture with contact **438** on touch screen **406** originating at a location corresponding to end indicator **434**.

FIG. **4**C illustrates moving end indicator **434** left-to-right and displaying start indicator **440** in response to the detecting the dragging gesture in FIG. **4**B. For example, selected portion **436** remains a 30 second interval of the audio track between end indicator **434** and start indicator **440**. FIG. **4**C also illustrates detecting contact **442** (e.g., a tap gesture) on touch screen **406** at a location corresponding to continue affordance **432**.

FIG. **4**D illustrates client device **104** displaying a live feed from a back-facing camera of client device **104** in response to detecting contact **442** selecting continue affordance **432** in FIG. **4**C. In FIG. **4**D, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**. In FIG. **4**D, the user interface includes back navigation affordance **444**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display the previous user interface (e.g., the user interface in FIG. **4**C). In FIG. **4**D, the user interface also includes affordance **446**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display a live feed from a front-facing camera of client device **104**, and affordance **448**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display a first pre-existing media content selection panel (e.g., panel **466** in FIG. **4**G). In FIG. **4**D, the user interface further includes effects region **450** with a plurality of audio and/or video effect affordances **452** corresponding to audio and/or video effects. In FIG. **4**D, the thick frame surrounding effect affordance **452**-*a* indicates that the effect corresponding to effect affordance **452**-*a* (i.e., no effect) is being applied to the video feed displayed on touch screen **406**. FIG. **4**D also illustrates detecting contact **454** at a location on touch screen **406**.

FIG. **4**E illustrates client device **104** recording a video clip in response to detecting contact **454** in FIG. **4**D. In FIG. **4**E, the user interface includes progress indicator **456** for the video clip being recorded. FIG. **4**E also illustrates detecting contact **458** at a location on touch screen **406**.

FIG. **4**F illustrates client device **104** displaying a live feed from the back-facing camera of client device **104** on touch screen **406** in response to detecting contact **458** in FIG. **4**E. In FIG. **4**F, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**. In FIG. **4**F, the user interface also includes forward navigation affordance **460**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display the next user interface (e.g., the user interface in FIG. **4**V) of the process for generating the media item. In FIG. **4**F, the user interface further includes representation **462** of the video clip recorded in FIGS. **4**D-**4**E. FIG. **4**F also illustrates detecting contact **464** on touch screen **406** at a location corresponding to affordance **448**.

FIG. **4**G illustrates client device **104** displaying first pre-existing media content selection panel **466** in response to detecting contact **464** selecting affordance **448** in FIG. **4**F. In FIG. **4**G, first pre-existing media content selection panel **466** includes a plurality of video regions **471**. In FIG. **4**G, each of video regions **471** is associated with a pre-recorded video **472** from a video library associated with the user of client device **104** and includes the recording date/time, length, comments, and location for the associated pre-recorded video **472**. In FIG. **4**G, first pre-existing media content selection panel **466** also includes back navigation affordance **468**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display the previous user interface (e.g., the user interface in FIG. **4**F) and image library affordance **470**, which, when activated (e.g., by a touch input from the user) causes client device **104** to display a second content selection panel including one or more pre-captured images in an image library associated with the user of client device **104**. In FIG. **4**G, first pre-existing media content selection panel **466** further includes scroll bar **412** indicating that the balance of the pre-recorded videos in the video library can be viewed by scrolling downwards. FIG. **4**G also illustrates detecting contact **474** on touch screen **406** at a location corresponding to video region **471**-*a* associated with pre-recorded video **472**-*a*.

FIG. **4**H illustrates client device **104** displaying pre-recorded video **472**-*a* as a live feed on touch screen **406** in response to detecting contact **474** selecting video region **471**-*a* in FIG. **4**G. In FIG. **4**H, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**. In FIG. **4**H, the user interface includes affordance **476**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display the live feed from the back-facing camera of client device **104** on touch screen **406** (e.g., the user interface in FIG. **4**D). FIG. **4**H also illustrates detecting contact **478** at a location on touch screen **406**.

FIG. **4**I illustrates client device **104** recording a second video clip from pre-recorded video **472**-*a* in response to detecting contact **478** in FIG. **4**H. In FIG. **4**I, the user interface includes progress indicator **480** for the second video clip being recorded. FIG. **4**I also illustrates detecting contact **482** at a location on touch screen **406**.

FIG. **4**J illustrates client device **104** displaying pre-recorded video **472**-*a* as a live feed on touch screen **406** in response to detecting contact **482** in FIG. **4**I. In FIG. **4**J, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**. In FIG. **4**J, the user interface also includes representation **484** of the second video clip recorded in FIGS. **4**H-**4**I. FIG. **4**F also illustrates detecting contact **486** on touch screen **406** at a location corresponding to affordance **476**.

FIG. **4**K illustrates client device **104** displaying a live feed from the back-facing camera of client device **104** on touch screen **406** in response to detecting contact **486** selecting affordance **476** in FIG. **4**J. In FIG. **4**K, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**.

FIG. **4**K also illustrates detecting contact **488** on touch screen **406** at a location corresponding to affordance **446**.

FIG. **4**L illustrates client device **104** displaying a live feed from the front-facing camera of client device **104** on touch screen **406** in response to detecting contact **488** selecting affordance **446** in FIG. **4**K. In FIG. **4**J, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**. FIG. **4**L also illustrates detecting contact **490** at a location on touch screen **406**.

FIG. **4**M illustrates client device **104** recording a third video clip in response to detecting contact **490** in FIG. **4**L. In FIG. **4**M, the user interface includes progress indicator **492** for the third video clip being recorded. FIG. **4**M also illustrates detecting contact **494** on touch screen **406** at a location corresponding to effect affordance **452**-*c*.

FIG. **4**N illustrates client device **104** applying in real-time a dots video effect corresponding to effect affordance **452**-*c* to the third video clip being recorded in response to detecting contact **494** selecting effect affordance **452**-*c* in FIG. **4**M. In FIG. **4**N, the user interface includes effect modifier **496** for modifying the dots video effect in real-time. For example, effect modifier **496** is a slider that increases the density of dots when slid left-to-right and decreases the density of dots when slid right-to-left. FIG. **4**N also illustrates detecting contact **498** at a location on touch screen **406**.

FIG. **4**O illustrates client device **104** displaying a live feed from the front-facing camera of client device **104** on touch screen **406** in response to detecting contact **498** in FIG. **4**N. In FIG. **4**O, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**. In FIG. **4**O, the user interface also includes representation **4100** of the third video clip recorded in FIGS. **4**L-**4**N in a third position in the sequence of representations.

FIGS. **4**O-**4**P illustrate client device **104** detecting a dragging gesture with contact **4102** on touch screen **406** originating at a location corresponding to representation **4100**. FIGS. **4**O-**4**P also illustrate moving representation **4100** of the third video clip away from the third position in the sequence of representations.

FIG. **4**Q illustrates representation **4100** of the third video clip in a second position in the sequence of representations and representation **484** of the second video clip in the third position in the sequences of representations in response to detecting the dragging gesture in FIGS. **4**O-**4**P.

FIGS. **4**Q-**4**R illustrate client device **104** detecting a dragging gesture with contact **4104** on touch screen **406** originating at a location corresponding to representation **484**. FIGS. **4**Q-**4**R also illustrate moving representation **484** of the second video clip from a third position in the sequence of representations to the right edge of touch screen **406**.

FIG. **4**S illustrates representation **462** of the first video clip in a first position and representation **4100** of the third video clip in a second position in the sequence of representations. In FIG. **4**S, representation **484** of the second video clip has been deleted in response to detecting the dragging gesture in FIGS. **4**Q-**4**R. FIG. **4**S also illustrates client device **104** detecting contact **4106** (e.g., a long press gesture) on touch screen **406** at a location corresponding to representation **462**.

FIG. **4**T illustrates splitting the first video clip corresponding to representation **462** into two separate video clips corresponding to representations **4108** and **4110** in response to detecting contact **4106** in FIG. **4**S. FIG. **4**T also illustrates client device **104** recording a fourth video clip in response to detecting contact **4106** in FIG. **4**S. In FIG. **4**T, the user interface includes progress indicator **4112** for the fourth video clip being recorded at a position between representations **4108** and **4110**. FIG. **4**T further illustrates detecting contact **4114** at a location on touch screen **406**.

FIG. **4**U illustrates client device **104** displaying a live feed from the front-facing camera of client device **104** on touch screen **406** in response to detecting contact **4114** in FIG. **4**T. In FIG. **4**U, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**. In FIG. **4**U, the user interface also includes representation **4116** of the fourth video clip recorded in FIGS. **4**S-**4**T in a second position in the sequence of representations. FIG. **4**U also illustrates client device **104** detecting contact **4118** on touch screen **406** at a location corresponding to forward navigation affordance **460**.

FIG. **4**V illustrates client device **104** displaying a preview of the media item generated in FIGS. **4**A-**4**U in response to detecting contact **4118** selecting forward navigation affordance **460** in FIG. **4**U. In FIG. **4**V, the user interface includes text entry box **4124** for adding a comment or hashtag to the media item and hashtags **4126** entered by the user of client device **104**. In FIG. **4**V, the user interface also includes back navigation affordance **4120**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display a previous user interface (e.g., the user interface in FIG. **4**U) and forward navigation affordance **4122**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display a next user interface (e.g., the user interface in FIG. **4**X). FIG. **4**V also illustrates client device **104** detecting contact **4128** on touch screen **406** at a location corresponding to forward navigation affordance **4122**.

FIG. **4**W illustrates client device **104** displaying a publication user interface for the media item generated in FIGS. **4**A-**4**U in response to detecting contact **4128** selecting forward navigation affordance **4122** in FIG. **4**V. In FIG. **4**W, the user interface prompts the user of client device **104** to choose a method to share the media item generated in FIGS. **4**A-**4**U. In FIG. **4**W, the user interface includes a plurality of options **4134** for sharing the media item (e.g., social media application A **4134**-*a*, social media application B **4134**-*b*, email **4134**-*c*, and SMS **4134**-*d*). For example, the application is configured to share the media item by sending a link to the media item via the selected option **4134**. In FIG. **4**W, the user interface also includes "Make Interactive" affordance **4136**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display a user interface (e.g., the user interface in FIG. **4**Y) for selecting audio and/or video effects to be applied and manipulated by a subsequent viewer of the media item. In FIG. **4**W, the user interface further includes back navigation affordance **4130**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display a previous user interface (e.g., the user interface in FIG. **4**V) and forward navigation affordance **4132**, which, when activated (e.g., by a touch input from the user), causes client device **104** to cause the media item to be published and display a home screen for the application. In some embodiments, when the generated media item is shared via email (e.g., after detecting selection of email sharing option **4134**-*c*), SMS (e.g., after detecting selection of SMS sharing option **4134**-*d*), or the like, the generated media item is sent directly to a recipient via the selected communication method and is not saved by server system **108** or published to the application. FIG. **4**W also illustrates client device **104** detecting contact **4138** on touch screen **406** at a location corresponding to "Make Interactive" affordance **4136**.

In some embodiments, the plurality of options **4134** for sharing the media item includes other sharing methods (not shown in FIG. **4**W) such as private sharing, temporary shar-

ing, and the like. In some embodiments, if a private sharing option is selected, the generated media item is stored by server system **108** but the generated media item is only accessible by users of the application that are specified by the author of the generated media item. In some embodiments, if a temporary sharing option is selected, the generated media item is stored by server system **108** and deleted a predetermined time after the media item is viewed a predetermined number of times (e.g., 1, 100, 1000, etc. views), viewed by a predetermined number or distinct user (e.g., 100 different users of the application), or viewed by a predefined user.

FIG. **4**X illustrates client device **104** displaying a first interactive effects selection panel **4140** in response to detecting contact **4138** selecting "Make Interactive" affordance **4136** in FIG. **4**W. In FIG. **4**X, first interactive effects selection panel **4140** includes a plurality of video effect affordances **4146**. In FIG. **4**X, each video effect affordance **4146** corresponds to an interactive video effect type **4147** and includes a preview of the corresponding interactive video effect. In FIG. **4**X, first interactive effects selection panel **4140** also includes back navigation affordance **4142**, which, when activated (e.g., by a touch input from the user), causes client device **104** to display the previous user interface (e.g., the user interface in FIG. **4**W or FIG. **4**Z) and audio effects affordance **470**, which, when activated (e.g., by a touch input from the user) causes client device **104** to display a second interactive effects selection panel including a plurality of interactive audio effects. In FIG. **4**X, first interactive effects selection panel **4140** includes a portion of video effect affordance **4146**-*f* indicating that the balance of video effects can be viewed by scrolling downwards in first interactive effects selection panel **4140**. FIG. **4**X also illustrates detecting contact **4148** on touch screen **406** at a location corresponding to video effect affordance **4146**-*a*.

FIG. **4**Y illustrates client device **104** displaying first interactive effects selection panel **4140**. In FIG. **4**Y, the thick frame surrounding video effect affordance **4146**-*a* indicates that the interactive video effect corresponding to video effect affordance **4146**-*a* has been selected in response to detecting contact **4148** in FIG. **4**X. In FIG. **4**Y, the user of client device **104** is able to select zero or more interactive audio and/or video effects in addition to the interactive video effect corresponding to video effect affordance **4146**-*a*. FIG. **4**Y also illustrates client device **104** detecting contact **4150** on touch screen **406** at a location corresponding to back navigation affordance **4142**.

FIG. **4**Z illustrates client device **104** displaying the publication user interface for the media item generated in FIGS. **4**A-**4**U in response to detecting contact **4150** selecting back navigation affordance **4142** in FIG. **4**Y. FIG. **4**Z also illustrates client device **104** detecting contact **4152** on touch screen **406** at a location corresponding to social media application A **4134**-*a*. For example, in response to detecting contact **4152** selecting social media application A **4134**-*a*, the application places a link to, or causes a link to be placed for, the media item generated in FIGS. **4**A-**4**U on a profile page in social media application A corresponding to the user of client device **104**.

FIG. **5** is a diagram of a representative metadata structure **500** for a respective media item in accordance with some embodiments. In FIG. **5**, representative metadata structure **500** corresponds to a respective media item. For example, in response to receiving information from a client device indicating that a user of the client device has generated a new media item (e.g., the respective media item), server system **108** generates metadata structure **500**. In some embodiments, the received information at least includes first information identifying one or more audio tracks associated with the respective media item and second information identifying one or more media files (e.g., video clips or images) associated with the respective media item. In some embodiments, metadata structure **500** is stored in media item metadata database **116**, as shown in FIGS. **1** and **3**.

Metadata structure **500** includes a plurality of entries, fields, and/or tables including a subset or superset of the following:

- identification tag field **502** includes a unique identifier for the respective media item;
- author field **504** includes the identifier, name, or handle associated with the creator/author of the respective media item;
- date/time field **506** includes a date and/or time stamp associated with generation of the respective media item;
- one or more media file pointer fields **508** including a pointer or link (e.g., a URL) for each of the one or more media files (e.g., video clips or images) associated with the respective media item;
- one or more audio source tables **510** for each of the one or more audio tracks associated with the respective media item, for example, a representative audio source table includes one or more pairings for each of one or more audio sources for a respective audio track such as:
  - audio pointer **512**-*a* to a first source of the respective track (e.g., SoundCloud), and start time **514**-*a* for the start time of the respective track from the first source; and
  - audio pointer **512**-*b* to a second source of the respective track (e.g., Pandora), and start time **514**-*b* for the start time of the respective track from the second source;
- effects table **516** includes an entry **518** for each of zero or more audio and/or video effects to be applied to the respective media item at run-time upon playback by a subsequent viewer, for example, entry **518**-*a* includes one or more of: the identifier, name, or handle associated with the user who added the effect; the effect type; the effect version; the content (e.g., one or more media files and/or audio tracks) subjected to the effect; a start time (t**1**) for the effect; an end time (t**2**) for the effect; one or more preset parameters (p**1**, p**2**, . . .) for the effect; and an effect script or computer-readable instructions for the effect (e.g., GLSL);
- interactive effects table **520** includes an entry **522** for each of zero or more interactive audio and/or video effects to be controlled and manipulated at run-time by a subsequent viewer of the respective media item, for example, entry **522**-*a* includes one or more of: the identifier, name, or handle associated with the user who added the interactive effect; the interactive effect type; the interactive effect version; the content (e.g., one or more media files and/or audio tracks) subjected to the effect; one or more parameters (p**1**, p**2**, . . .) for the interactive effect; a table mapping interactive input modalities to effect parameters; and an effect script or computer-readable instructions for the interactive effect (e.g., GLSL);
- play count field **524** includes zero or more entries **526** for each play back of the respective media item, for example, entry **526**-*a* includes: the identifier, name, or handle associated with the user who played the respective media item; the date and time when the respective media item was played; and the location where the respective media item was played;
- shares field **528** includes zero or more entries **530** for each share of the respective media item, for example, entry **530**-*a* includes: the identifier, name, or handle associ-

ated with the user who shared the respective media item; the method by which the respective media item was shared; the date and time when the respective media item was shared; and the location where the respective media item was shared;

comments field **532** includes zero or more entries **534** for each comment (e.g., a hashtag) corresponding to the respective media item, for example, entry **534**-*a* includes: the comment; the identifier, name, or handle associated with the user who authored the comment; the date and time when the comment was authored; and the location where the comment was authored; and

associated media items field **536** includes zero or more entries **538** for each media item (e.g., a parent or child media item) associated with the respective media item, for example, entry **538**-*a* corresponding to a parent media item associated with the respective media item includes: an identification tag for the parent media item; the identifier, name, or handle associated with the user who authored the parent media item; the date and time when the parent media item was authored; and the location where the parent media item was authored.

In some implementations, metadata structure **500**, optionally, stores a subset of the entries, fields, and/or tables identified above. Furthermore, metadata structure **500**, optionally, stores additional entries, fields, and/or tables not described above. In some embodiments, effect parameters include, but are not limited to: (x,y) position and scale of audio and/or video effects, edits, specification of interactive parameters, and so on.

FIGS. **6**A-**6**F illustrate a flowchart diagram of a client-side method **600** of generating a media item in accordance with some embodiments. In some embodiments, method **500** is performed by an electronic device with one or more processors and memory. For example, in some embodiments, method **600** is performed by a mobile device (e.g., client device **104**, FIGS. **1**-**2**) or a component thereof (e.g., client-side module **102**, FIGS. **1**-**2**). In some embodiments, method **600** is governed by instructions that are stored in a non-transitory computer readable storage medium and the instructions are executed by one or more processors of the electronic device. Optional operations are indicated by dashed lines (e.g., boxes with dashed-line borders).

The client device displays (**602**) a first user interface including a plurality of audio tracks. FIG. **4**A, for example, shows client device **104** displaying a first user interface of a process for generating a media item on touch screen **406**. In FIG. **4**A, for example, the first user interface includes a plurality of audio track affordances **416** corresponding to audio tracks.

The client device detects (**604**) a first user input selecting one of the plurality of audio tracks. FIG. **4**A, for example, shows client device **104** detecting contact **420** selecting audio track affordance **416**-*c* corresponding to an audio track.

In some embodiments, in response to detecting the first user input and prior to displaying the second user interface for recording a video clip, the client device displays (**606**) an audio track portion selection user interface that enables the user of the client device to select a portion of the selected audio track, and the client device detects a user input selecting a specified portion of the audio track. In response to detecting contact **420** selecting audio track affordance **416**-*c*, FIGS. **4**B-**4**C, for example, show client device **104** displaying a user interface prompting the user of client device **104** to choose a portion of the audio track corresponding to audio track affordance **416**-*c*. FIG. **4**B, for example, shows client device **104** detecting a dragging gesture with contact **438** to move end indicator **434** and along with it portion **436** of the audio track corresponding to audio track affordance **416**-*c*. FIG. **4**C, for example, shows client device **104** detecting contact **442** selecting portion **436** of the audio track corresponding to audio track affordance **416**-*c*. In some embodiments, portion **436** is a predetermined maximum length (e.g., a **15**, **30**, etc. second chunk) in relation to a predetermined maximum size for the media item (e.g., in terms of seconds or bytes). In some embodiments, portion **436** is only limited by the length of the audio track. In FIGS. **4**B-**4**C, for example, portion **436** is a predetermined 30 second chunk of the audio track corresponding to audio track affordance **416**-*c* both before and after moving end indicator **434**.

In response to detecting the first user input, the client device displays (**608**) a second user interface for recording a video clip. After selecting the audio track in FIG. **4**A, FIG. **4**D, for example, shows client device **104** displaying a second user interface on touch screen **406** of a process for generating a media item. In FIG. **4**D, for example, the user interface prompts the user of client device **104** to record a video clip for the media item by tapping anywhere on touch screen **406**.

In some embodiments, the process for generating the media item proceeds with client device **104** displaying the first user interface for selecting one of a plurality of audio tracks (e.g., FIGS. **4**A-**4**C) for the media item prior to the second user interface for recording a video clip (e.g., FIG. **4**D) for the media item. Alternatively, in some embodiments, the process for generating a media item proceeds with client device **104** displaying the second user interface for recording a video clip (e.g., FIG. **4**D) for the media item prior to the first user interface for selecting one of a plurality of audio tracks (e.g., FIGS. **4**A-**4**C) for the media item.

In some embodiments, displaying the second user interface includes (**610**) displaying a video feed from a first camera of the client device. In some embodiments, a feed from at least one of the one or more cameras of client device **104** is automatically displayed in the second user interface after selecting the audio track. FIG. **4**D, for example, shows client device **104** displaying a live feed from a back-facing camera of client device **104** on touch screen **406**. FIG. **4**L, for example, shows client device **104** displaying a live feed from the front-facing camera of client device **104** on touch screen **406**.

The client device detects (**612**) a second user input to initiate recording of the video clip (e.g., a tap gesture anywhere on the second user interface). FIG. **4**D, for example, shows client device **104** detecting contact **454** at a location on touch screen **406** to initiate recording of a first video clip for the media item from the live feed from the back-facing camera of client device **104**.

In some embodiments, in response to detecting the second user input, the client device displays (**614**) progress of recording of the video clip in the second user interface (e.g., a progress bar is filled while recording the video clip). FIG. **4**E, for example, shows client device **104** displaying progress indicator **456** for the first video clip being recorded. In some embodiments, a predetermined maximum length for the media item limits the length of the one or more video clips being shot (e.g., 15, 30, 60, etc. seconds). For example, the horizontal width of the screen represents the predetermined maximum length for the one or more video clips associated with the media item. For example, in FIG. **4**E, the length of progress indicator **456** indicates the length of the first video clip in relation to the predetermined maximum size for the media item.

In some embodiments, prior to detecting the third user input (**616**), the second user interface includes (**618**) a plurality of audio and/or video effect affordances associated with a

plurality of audio and/or video effects, and, after detecting the second user input and prior to detecting the third user input, the client device: detects a fifth user input selecting one of the plurality of audio and/or video effect affordances; and in response to detecting the fifth user input, applies the audio and/or video effect corresponding to the selected one of the plurality of audio and/or video effect affordances to the video clip being recorded. FIG. **4**L, for example, shows client device **104** displaying the user interface for recording a video clip including effects region **450** with a plurality of audio and/or video effect affordances **452** corresponding to audio and/or video effects. In FIG. **4**L, for example, the thick frame surrounding effect affordance **452**-*a* indicates that the effect corresponding to effect affordance **452**-*a* (i.e., no effect) is being applied to the video feed displayed on touch screen **406**. FIG. **4**M, for example, shows client device **104** detecting contact **494** selecting effect affordance **452**-*c* corresponding to a dots video effect. FIG. **4**N, for example, shows client device **104** applying, in real-time, the dots video effect to the third video clip being recorded in response to detecting contact **494** selecting effect affordance **452**-*c* in FIG. **4**M. In some embodiments, the user of client device **104** is also able to apply, in real-time, overlay text, such as a title, to the video clip being recorded.

In some embodiments, prior to detecting the third user input (**616**), the client device (**620**): detects a sixth user input (e.g., moving a slider associated with the effect or performing a specified gesture) after applying the audio and/or video effect corresponding to the selected one of the plurality of audio and/or video effect affordances to the video clip being recorded; and in response to detecting the sixth user input, varies one or more parameters associated with the audio and/or video effect being applied to the video clip being recorded. In FIG. **4**N, for example, the user interface includes effect modifier **496** for modifying the dots video effect in real-time. For example, effect modifier **496**, in FIG. **4**N, is a slider that increases the density of dots when slid left-to-right and decreases the density of dots when slid right-to-left. In some embodiments, audio and/or video effects in which multiple actual parameters have been projected to one-dimensional controls that map to simultaneously change to many actual controls, in order to simplify the user experience. In some embodiments, the control of effects is via "invisible" sliders actuated by simply touching and dragging across the screen. In some embodiments, the audio and/or video effects have interactive components that can be controlled and manipulated at run-time via user inputs from a subsequent viewer.

In some embodiments, the effects are downloaded from server system **108** at run-time including computer-readable instructions or scripts for the effects written in a language such as GLSL, accompanied by effect metadata indicating effect type, effect version, effect parameters, a table mapping interactive modalities (e.g., touch, gesture, sound, vision, etc.) to effect parameters, and so on. In this way, the choice, number, and type of effect can be varied at run-time. In some embodiments, a web-based content management server (CMS) is available for the real-time browser-based authoring and uploading of effects to the server, including real-time preview of effects on video and/or audio (e.g., using technologies such as WebGL). In some embodiments, the audio and/or video effects have interactive components that can specified and customized by authors via the CMS, and then be controlled and manipulated at run-time via user inputs.

The client device detects (**622**) a third user input to stop recording of the video clip (e.g., a tap gesture anywhere on the second user interface). FIG. **4**E, for example, shows client device **104** detecting contact **458** at a location on touch screen **406** to stop recording of the first video clip for the media item.

In some embodiments, in response to detecting the third user input, the client device displays (**624**) a representation of the video clip in the second user interface. In FIG. **4**F, for example, the user interface includes representation **462** of the first video clip recorded in FIGS. **4**D-**4**E.

In some embodiments, the second user interface includes a first affordance, and, prior to detecting the fourth user input (**626**), the client device (**628**): detects a fifth user input selecting the first affordance; and, in response to detecting the fifth user input, displays a video feed from a second camera of the client device, where the second camera is different from the first camera. FIG. **4**K, for example, shows client device **104** displaying a live feed from the back-facing camera of client device **104** on touch screen **406** and detecting contact **488** on touch screen **406** at a location corresponding to affordance **446** (e.g., the first affordance). FIG. **4**L, for example, shows client device **104** displaying a live feed from the front-facing camera of client device **104** on touch screen **406** in response to detecting contact **488** selecting affordance **446** in FIG. **4**K.

In some embodiments, the second user interface includes a second affordance, and, prior to detecting the fourth user input (**626**), the client device (**630**): detects a fifth user input selecting the second affordance; in response to detecting the fifth user input, displays one or more pre-existing video clips and/or one and more pre-existing images; and detects a sixth user input selecting one or more video clips and/or one or more images from the one or more pre-existing video clips and/or the one and more pre-existing images. FIG. **4**F, for example, shows client device **104** detecting contact **464** on touch screen **406** at a location corresponding to affordance **448** (e.g., the second affordance). FIG. **4**G, for example, shows client device **104** displaying first pre-existing media content selection panel **466** in response to detecting contact **464** selecting affordance **448** in FIG. **4**F. For example, in FIG. **4**G, first pre-existing media content selection panel **466** includes a plurality of video regions **471**, where each of video regions **471** is associated with a pre-recorded video **472** from a video library associated with the user of client device **104** (e.g., video library **252**, FIG. **2**) and includes the recording date/time, length, comments, and location for the associated pre-recorded video **472**. For example, in FIG. **4**G, first pre-existing media content selection panel **466** also includes image library affordance **470**, which, when activated (e.g., by a touch input from the user) causes client device **104** to display a second content selection panel including one or more pre-captured images in an image library associated with the user of client device **104** (e.g., image library **254**, FIG. **2**). FIG. **4**G, for example, also shows client device **104** detecting contact **474** on touch screen **406** at a location corresponding to video region **471**-*a* associated with pre-recorded video **472**-*a*.

In some embodiments, in response to detecting the sixth user input, the client device displays (**632**) the one or more video clips and/or one or more images as a live source in the second user interface, where the live source is treated identically to a video feed from a first camera of the client device. FIG. **4**H, for example, shows client device **104** displaying pre-recorded video **472**-*a* as a live feed on touch screen **406** in response to detecting contact **474** selecting video region **471**-*a* in FIG. **4**G.

In some embodiments, displaying the one or more images as the live source includes animating (**634**) the one or more images with effects. For example, when one or more pre-captured images are selected from the image library, the one or more selected images are displayed on touch screen **406** as

a live source (e.g., a slideshow) with animation effects (e.g., two- and three-dimensional movements, scale, pixel effects, distortion effects, transition effects, and so on) between images.

In some embodiments, the video clip is a first video clip, and, prior to detecting the fourth user input (**626**), the client device (**636**): detects a seventh user input to initiate recording of a second video clip from the one or more video clips and/or one or more images being displayed in the second user interface; and detects an eighth user input to stop recording of the second video clip. In some embodiments, the user of client device **104** is able to "sample" from pre-recorded video clips as if the pre-recorded video clip is a love source. FIG. **4**H, for example, shows client device **104** detecting contact **478** at a location on touch screen **406** to initiate recording of a second video clip for the media item from pre-recorded video **472**-*a*. FIG. **4**I, for example, shows client device **104** detecting contact **482** at a location on touch screen **406** to stop recording of the second video clip for the media item.

In some embodiments, the video clip is a first video clip, and, prior to detecting the fourth user input (**626**), the client device (**638**): detects a fifth user input to initiate recording of a second video clip; and detects a fifth user input to stop recording of the second video clip. FIG. **4**L, for example, shows client device **104** detecting contact **490** at a location on touch screen **406** to initiate recording of a third video clip for the media item from the live feed from the front-facing camera of client device **104**. FIG. **4**N, for example, shows client device **104** detecting contact **498** at a location on touch screen **406** to stop recording of the third video clip for the media item.

In some embodiments, prior to detecting the fourth user input (**626**), the client device displays (**640**) a sequence of representations of two or more distinct video clips at least including the first video clip and the second video clip. In some embodiments, representations of the recorded video clips are arranged according to the sequence in which the video clips were recorded in the process for generating the media item. In FIG. **4**J, for example, the user interface includes a sequence of representations for two video clips: (1) representation **462** of the first video clip recorded in FIGS. **4**D-**4**E; and (2) representation **484** of the second video clip recorded in FIGS. **4**H-**4**I. In FIG. **4**O, for example, the user interface includes a sequence of representations for three video clips: (1) representation **462** of the first video clip recorded in FIGS. **4**D-**4**E; (2) representation **484** of the second video clip recorded in FIGS. **4**H-**4**I; and (3) representation **4100** of the third video clip recorded in FIGS. **4**L-**4**N.

In some embodiments, prior to detecting the fourth user input (**626**), the client device (**642**): detects a gesture dragging a respective representation in the sequence of representations from a first position in the sequence of representations to a second position in the sequence of representations; and, in response to detecting the gesture, displays the respective representation in the second position in the sequence of representations. In some embodiments, the user of client device **104** is able to reorder the recorded video clips by dragging a representation of a respective video clip them a first location to a second location in the sequence of representations. FIGS. **4**O-**4**P, for example, show client device **104** detecting a dragging gesture with contact **4102** on touch screen **406** originating at a location corresponding to representation **4100** and moving representation **4100** of the third video clip out of the third position in the sequence of representations. FIG. **4**Q, for example, shows client device **104** displaying representation **4100** of the third video clip in a second position in the sequence of representations and representation **484** of the second video clip in the third position in the sequences of representations in response to detecting the dragging gesture in FIGS. **4**O-**4**P.

In some embodiments, prior to detecting the fourth user input (**626**), the client device (**644**): detects a gesture dragging a respective representation in the sequence of representations from a first position in the sequence of representations to a second position in the sequence of representations; and, in response to detecting the gesture, ceases to display the respective representation in the sequence of representations. In some embodiments, the user of client device **104** is able to delete a video clip by dragging a representation corresponding to the video clip off the screen or towards the top or edge of the screen, and detecting the end of a dragging gesture (e.g., liftoff of the contact comprising the dragging gesture). FIGS. **4**Q-**4**R, for example, shows client device **104** detecting a dragging gesture with contact **4104** on touch screen **406** originating at a location corresponding to representation **484** and moving representation **484** of the second video clip from a third position in the sequence of representations to the right edge of touch screen **406**. FIG. **4**S, for example, shows client device **104** ceasing to display representation **484** in response to detecting the dragging gesture in FIGS. **4**Q-**4**R.

In some embodiments, prior to detecting the fourth user input (**626**), the client device (**646**): detects a gesture at a position in a respective representation in the sequence of representations; and, in response to detecting the gesture: splits the respective representation into two distinct video clips based on the position; and records a third video clip starting from the position. In some embodiments, the user of client device **104** is able to split a video clip into two separate video clips based on the location of a user input selecting a representation of the video clip and, also, record a new video clip between the two separate video clips. FIG. **4**S, for example, shows client device **104** detecting contact **4106** (e.g., a long press gesture) on touch screen **406** at a location corresponding to representation **462**. FIG. **4**T, for example, shows client device **104** splitting the first video clip corresponding to representation **462** into two separate video clips corresponding to representations **4108** and **4110** and, also, recording a fourth video clip associated with progress indicator **4112** between the two separate video clips in response to detecting contact **4106** in FIG. **4**S. In one embodiment, the user of client device **104** is able to select an insertion along the video timeline somewhere between the beginning and end of a video clip corresponding to the location of an input gesture at a location corresponding to the representation for the video clip. Subsequently, in response to detecting a user input to initiate recording of a video clip, the video clip corresponding to the representation is split into two separate video clips at the insertion point, and a new video clip begins recording at the insertion point, moving all subsequent video clips forward in time in proportion to the duration of the new video clip.

In some embodiments, prior to detecting the fourth user input (**626**), the client device (**648**): detects a gesture at a location corresponding to a respective representation in the sequence of representations; in accordance with a determination that the gesture is in a first direction, increases the frame rate of the video clip associated with the respective representation; and in accordance with a determination that the gesture is in a second direction substantially opposite to the first direction, decreases the frame rate of the video clip associated with the respective representation. In some embodiments, the video clip was recorded at a maximum available frame rate (e.g., 120 frames per second (fps)). For example, with respect to FIG. **4**L, the user of client device **104** is able to perform a pinch gesture at a location corresponding to representation

462 to increase the frame rate (and decrease the duration) of the video clip associated with representation **462**. In this example, the frame rate is increased up to the displayable maximum frame-rate (e.g. 60 fps) after which point client device **104** is configured to skip or blend frames (e.g. playing the 2nd, 4th, 6th, and so on frames, or playing blended frames 2+3, 4+5, 6+7, and so on) to provide the continued illusion of faster-and-faster motion. In another example, with respect to FIG. **4**L, the user of client device **104** is able to perform a de-pinch gesture (substantially opposite to the punch gesture) at a location corresponding to representation **462** to decrease the frame rate (and increase the duration) of the video clip associated with representation **462**. In this example the frame rate is decreased down to the displayable minimum frame-rate (e.g. 15 fps) and thereafter client device **104** is configured to generate interpolated frames (e.g. interpolating between frames 3 and 4 to generate frame 3.5) to create ultra-slow-motion effects.

In some embodiments, the user of client device **104** is able to select the frame rate to record video in slow motion. In some embodiments, the user of client device **104** is able to import video clips from video library **252** (FIG. **2**) and subsequently select the frame rate to sample the previously recorded video in slow motion. In some embodiments, after recording a video or sampling previously recorded video, the user of client device **104** is able to select a reverse-motion feature whereby the video is played back in reverse and the user of client device **104** is able to sample the video in reverse-motion for the media item to be generated. In some embodiments, before recording a video or sampling previously recorded video, the user of client device **104** is able to select a time-lapse feature whereby the run time of the video will be compressed to a selected time-lapse length (e.g., 5 minutes of captured video is sped up to fit a selected 2 minute time-lapse length). In some embodiments, before recording a video or sampling previously recorded video, the user of client device **104** is able to select a time-stretch feature whereby the run time of the video will be r stretched to a selected time-lapse length (e.g., 2 minutes of captured video is slowed down to fit a selected 5 minute time-stretch length).

In some embodiments, after detecting the third user input and prior to detecting the fourth user input, the client device detects (**650**) a fifth user input selecting one or more video effects and/or one or more audio effects in order to create an interactive media item, where a subsequent viewer of the interactive media item is able to interact with the video and/or audio associated with the interactive media item using the selected one or more video effects and/or one or more audio effects. In some embodiments, interactive audio and/or video effects selected by the author are embedded into the media item to make the media item interactive for subsequent viewers. For example, user inputs from a subsequent viewer control and manipulate these interactive effects at run-time. In some embodiments, effect ranges and parameters for the interactive effects are also selected by the author. FIG. **4**X, for example, shows client device **104** displaying a first interactive effects selection panel **4140** in response to detecting contact **4138** selecting "Make Interactive" affordance **4136** in FIG. **4**W. In FIG. **4**X, for example, first interactive effects selection panel **4140** includes a plurality of video effect affordances **4146** each corresponding to an interactive video effect type **4147** and including a preview of the corresponding interactive video effect. In FIG. **4**X, for example, first interactive effects selection panel **4140** also includes audio effects affordance **470**, which, when activated (e.g., by a touch input from the user) causes client device **104** to display a second interactive effects selection panel including a plurality of interactive audio effects. FIG. **4**X, for example, shows also shows client device **104** detecting contact **4148** on touch screen **406** selecting video effect affordance **4146**-*a* corresponding to a respective video effect. In FIG. **4**Y, for example, the thick frame surrounding video effect affordance **4146**-*a* indicates that the video effect corresponding to video effect affordance **4146**-*a* has been selected in response to detecting contact **4148** in FIG. **4**X. For example, in FIG. **4**Y, the user of client device **104** is able to select zero or more interactive audio and/or video effects in addition to the interactive video effect corresponding to video effect affordance **4146**-*a*.

The client device detects (**652**) a fourth user input to publish the media item based on the video clip and the selected audio track. For example, in response to detecting a user input selecting forward navigation affordance **4132**, in FIG. **4**W or **4**Z, client device **104** causes the media item to be published and displays a home screen for the application.

In response to detecting the fourth user input, the client device publishes (**654**) the media item to a server, including sending to the server information identifying the selected audio track, the video clip, and information related to synchronization of the selected audio track and the video clip. For example, in response to detecting a user input selecting forward navigation affordance **4132** (e.g., in FIG. **4**W or FIG. **4**Z) or a user input selecting any of sharing options **4134** (e.g., in FIG. **4**W), client device **104** causes the media item generated in FIGS. **4**A-**4**U to be published by sending, to server system **108**, information associated with the media item. In some embodiments, the information at least includes: (A) first information identifying at least a portion of an audio track selected in FIGS. **4**A-**4**C; and (B) second information identifying the recorded video clips corresponding to representations **4108**, **4116**, **4110**, and **4100** in FIG. **4**U. In some embodiments, in response to publishing the media item, server system **108** downloads the one or more video clips identified in the second information and creates a metadata structure (e.g., metadata structure **500**, FIG. **5**) at least including a pointer to each of the one or more video clips and a pointer to the audio track.

In some embodiments, in response to detecting the fourth user input, the client device displays (**656**) a third user interface including one or more options for sharing the media item (e.g., affordances for email, SMS, social media outlets, etc.). FIG. **4**Z, for example, shows client device **104** detecting contact **4152** on touch screen **406** at a location corresponding to social media application A **4134**-*a*. For example, in response to detecting contact **4152** selecting social media application A **4134**-*a*, client device **104** causes a link to the generated media item to be placed on a profile page in social media application A corresponding to the user of client device **104**. In another example, in response to detecting contact **4152** selecting social media application A **4134**-*a*, client device **104** causes a link to the generated media item to be placed on a profile page in social media application A corresponding to the user of client device **104** and the generated media item is published by sending, to server system **108**, information associated with the media item.

FIGS. **7**A-**7**B illustrate a flowchart diagram of a server-side method **700** of generating the media item in accordance with some embodiments. In some embodiments, method **700** is performed by an electronic device with one or more processors and memory. For example, in some embodiments, method **700** is performed by a server (e.g., server system **108**, FIGS. **1** and **3**) or a component thereof (e.g., server-side module **106**, FIGS. **1** and **3**). In some embodiments, method **700** is governed by instructions that are stored in a non-transitory computer readable storage medium and the instruc-

tions are executed by one or more processors of the electronic device. Optional operations are indicated by dashed lines (e.g., boxes with dashed-line borders).

The server receives (**702**) first information, from a client device, identifying at least a portion of an audio track associated with the media item. For example, in response to detecting a user input selecting forward navigation affordance **4132**, in FIG. **4**W or FIG. **4**Z, client device **104** causes the media item to be published by sending, to server system **108**, first information identifying at least a portion of an audio track selected in FIGS. **4**A-**4**C associated with the media item generated in FIGS. **4**A-**4**U.

In some embodiments, the first information also identifies (**704**) a specified portion of the audio track (e.g., the specified portion of the audio track includes at least a predetermined amount of the audio track such as 5, 10, 15, 30, etc. seconds). For example, the first information identifying at least a portion of the audio track selected in FIGS. **4**A-**4**C, identifies portion **436** (e.g., a 30 second chunk of the audio track corresponding to audio track affordance **416**-*c*) selected in FIG. **4**C.

In some embodiments, the first information further identifies (**706**) an audio start time indicator corresponding to the specified portion of the audio track. For example, the first information includes a start timestamp associated with start indicator **440** and an end timestamp associated with end indicator **434** for portion **436** of the audio track corresponding to audio track affordance **416**-*c* selected in FIG. **4**C.

The server receives (**708**) second information, from the client device, identifying one or more media files associated with the media item. In some embodiments, the one or more media files include one or more video clips recorded by the user during the process for creating the media item, one or more pre-recorded video clips selected from the user's video library **252** (FIG. **2**), one or more pre-captured images selected from the user's image library **256** (FIG. **2**), or video clips and/or images selected from a remote media file source **126**, as shown in FIG. **1** (e.g., YouTube or Flickr). For example, in response to detecting a user input selecting forward navigation affordance **4132**, in FIG. **4**W or FIG. **4**Z, client device **104** causes the media item to be published by also sending, to server system **108**, second information identifying the recorded video clips corresponding to representations **4108**, **4116**, **4110**, and **4100** in FIG. **4**U associated with the media item generated in FIGS. **4**A-**4**U.

In some embodiments, in response to receiving the second information, the server obtains (**710**) the one or more media files identified by the second information. For example, server system **108** downloads the video clips corresponding to representations **4108**, **4116**, **4110**, and **4100** in FIG. **4**U to media files database **114**, as shown in FIGS. **1** and **3**. In another example, server system **108** causes the video clips corresponding to representations **4108**, **4116**, **4110**, and **4100** in FIG. **4**U to be saved to a database located remotely from server system **108**.

The server generates (**712**) a metadata structure corresponding to the media item generated by the client device, where (**714**): the metadata structure enables synchronization of at least the portion of the audio track with the one or more media files; and the metadata structure includes: a pointer to the audio track identified by the first information; and a pointer to the one or more media files identified by the second information. For example, in response to receiving the first information and the second information, server system **108** generates metadata structure **500**, as shown in FIG. **5**, corresponding to the media item generated in FIGS. **4**A-**4**U. In FIG. **5**, for example, metadata structure **500** includes: (A) one or more video file pointer fields **508** including a pointer or link (e.g., a URL) for each of the one or more video clips associated with the media item; and (B) an audio pointer for each of the one or more audio tracks associated with the media item. For example, metadata structure **500** also includes an audio start time field to synchronize the audio track with the one or more media files associated with the media item. In another example, metadata structure **500** does not include an audio start time field and the audio track is predefined to start from its beginning.

In some embodiments, the first information includes information identifying a first source of the audio track, and the client device (**716**): determines a second source of the audio track, where the metadata structure further includes a source table for the audio track, including a first audio start time indicator associated with the first source and a second audio start time indicator associated with the second source. For example, an audio source table for an audio track associated with a media item is required to maintain synchronized play back of the audio track when the audio track is available from two or more streaming audio service providers (e.g., Spotify, SoundCloud, Rdio, Pandora, etc.) and the various streaming versions of the audio track include differences such as varying start times. In FIG. **5**, for example, metadata structure **500** includes one or more audio source tables **510** for each of the one or more audio tracks associated with the media item. In this example, a representative audio source table for a respective audio track includes one or more pairings for each of one or more audio sources for the respective audio track. In this example, a first representative pairing includes audio pointer **512**-*a* to a first source of the respective track (e.g., SoundCloud) and start time **514**-*a* for the start time of the respective track from the first source, and a second representative pairing includes audio pointer **512**-*b* to a second source of the respective track (e.g., Pandora) and start time **514**-*b* for the start time of the respective track from the second source.

In some embodiments, the server receives (**718**) third information, from the client device, identifying one or more audio effects and/or one or more video effects to be applied to the audio track and/or the one or more media files, where the third information further includes an effects table with one or more entries, each of the one or more entries includes the type of audio or video effect applied to the audio track or the one or more media files and a timestamp indicating the start time of the audio or video effect. In some embodiments, audio and/or video effects are created during the process of generating a media item as a metadata description of effects, that are to be applied at run-time in the application or browser of the subsequent viewer, to preserve the quality of effects, and to allow infinite remixing, revision, and future high-quality compatibility with new devices and resolution. For example, the third information includes effects table **516**, in FIG. **5**. In this example, each entry **518** in effects table **516** corresponds to an audio and/or video effect selected by the author of the media item. Continuing with this example, the entry **518**-*a* includes one or more of: the identifier, name, or handle associated with the user who added the effect; the effect type; the effect version; the content (e.g., media file and/or audio track) subjected to the effect; a start time (t**1**) for the effect; an end time (t**2**) for the effect; and one or more preset parameters (p**1**, p**2**, . . .) for the effect. In some embodiments, the entry also includes computer-readable instructions for generating the effect such as GLSL scripts.

In some embodiments, the server (**720**): analyzes the at least one of the identified audio track and the one or more media files to obtain a digital fingerprint for at least one of the identified audio track and the one or more media files; deter-

mines whether the digital fingerprint matches an audio track or video clip in a database; and in accordance with a determination that digital fingerprint matches an audio track or video clip in a database, performs an action specified by an owner of the audio track or video clip. In some embodiments, owners of copyrighted audio tracks or video clips upload at least a sample of the audio tracks or video clips to reference database **332** (FIG. **3**) associated with the provider of the application. In some embodiments, the owner of the copyrighted audio tracks or video clips also identifies a preference for treating user generated media items that include audio tracks or video clips that matches their copyrighted audio tracks or video clips. In some embodiments, server system **108** or a component thereof (e.g., analyzing module **322**, FIG. **3**) analyzes the audio tracks and video clips associated with the user generated media item to determine a digital fingerprint for the audio tracks and video clips. In some embodiments, when server system **108** or a component thereof (e.g., determining module **324**, FIG. **3**) determines that the digital fingerprint for the audio tracks and video clips associated with the user generated media item matches copyrighted audio tracks and/or video clips in reference database **332**, server system **108** or a component thereof (e.g., performing module **326**, FIG. **3**) is configured to perform an action corresponding to the preference identified by the owner of the copyrighted audio tracks and/or video clips. For example, copyright holder may allow users to freely use their copyrighted audio tracks and/or video clips, prefer to collect a portion of ad revenue generated from views of the user generated media item, or prefer to scrub their copyrighted audio tracks and/or video clips from the user generated media item (e.g., muting the copyrighted audio).

In some embodiments, the server (**722**): receives a command to share the media item; and in response to the command to share the media item: flattens the media item into a single stream with combined audio and video; and generates a link for accessing the single stream. For example, in response to detecting contact **4152** selecting social media application A **4134**-*a* in FIG. **4**Z, server system **108** receives, from client device **104**, a command to share the media item generated in FIGS. **4**A-**4**U. In response to receiving the command, server system **108** causes a link to the media item to be placed on a profile page in social media application A corresponding to the user of client device **104**. In some embodiments, server system **108** or a component thereof (e.g., modifying module **328**, FIG. **3**) generates a flattened version of the media item by combining the one or more audio tracks, one or more video clips, and zero or more effects associated with the media item into a single stream or digital media item. In some embodiments, the link placed on the profile page in social media application A corresponds to the flattened version of the media item for web browsers.

In some embodiments, sharing a media item is accomplished by a specialized web player that recreates a subset of the functions of the application and runs in a web browser, such as some combination of: synchronizing audio and video streams from different sources during playback; applying real-time effects; allowing interaction with the player; allowing sharing and re-sharing of the media item on social networks or embedded in web pages, etc.

It will be understood that, although the terms "first," "second," etc. may be used herein to describe various elements, these elements should not be limited by these terms. These terms are only used to distinguish one element from another. For example, a first user input could be termed a second user input, and, similarly, a second user input could be termed a first user input, without changing the meaning of the description, so long as all occurrences of the "first user input" are renamed consistently and all occurrences of the "second user input" are renamed consistently. The first user input and the second user input are both user inputs, but they are not the same user input.

The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the claims. As used in the description of the embodiments and the appended claims, the singular forms "a," "an," and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will also be understood that the term "and/or" as used herein refers to and encompasses any and all possible combinations of one or more of the associated listed items. It will be further understood that the terms "comprises" and/or "comprising," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

As used herein, the term "if" may be construed to mean "when" or "upon" or "in response to determining" or "in accordance with a determination" or "in response to detecting," that a stated condition precedent is true, depending on the context. Similarly, the phrase "if it is determined [that a stated condition precedent is true]" or "if [a stated condition precedent is true]" or "when [a stated condition precedent is true]" may be construed to mean "upon determining" or "in response to determining" or "in accordance with a determination" or "upon detecting" or "in response to detecting" that the stated condition precedent is true, depending on the context.

The foregoing description, for purpose of explanation, has been described with reference to specific embodiments. However, the illustrative discussions above are not intended to be exhaustive or to limit the claims to the precise forms disclosed. Many modifications and variations are possible in view of the above teachings. The embodiments were chosen and described in order to best explain principles of operation and practical applications, to thereby enable others skilled in the art.

What is claimed is:

1. A method of generating a media item, the method comprising:

at a client device with one or more processors and memory:

displaying a first user interface including a plurality of audio tracks;

detecting a first user input selecting one of the plurality of audio tracks;

in response to detecting the first user input, displaying a second user interface for obtaining one or more video clips;

generating a first video clip, the generating including:

detecting a second user input to initiate recording of the first video clip;

detecting a third user input to stop recording of the first video clip;

obtaining a second video clip, the obtaining including:

detecting a fourth user input selecting an affordance within the second user interface;

in response to detecting the fourth user input, displaying one or more visual media files; and

detecting a fifth user input selecting at least one of the one or more visual media files;

generating the media item based on the first and second video clips and the selected audio track, the generating including generating synchronization information

for playing the selected audio track simultaneously with the first and second video clips;

detecting a sixth user input to publish the generated media item; and,

in response to detecting the sixth user input, uploading the media item to a server for publishing, the uploading including sending to the server information identifying the selected audio track, the video clip, and the synchronization information.

2. The method of claim **1**, further including:

in response to detecting the first user input and prior to displaying the second user interface for recording a video clip, displaying an audio track portion selection user interface that enables the user of the client device to select a portion of the selected audio track; and

detecting a user input selecting a specified portion of the audio track.

3. The method of claim **1**, wherein the information identifying the selected audio track includes information identifying a licensed source of the selected one of the plurality of audio tracks.

4. The method of claim **1**, wherein displaying the second user interface includes displaying a video feed from a first camera of the client device.

5. The method of claim **4**, wherein the second user interface includes a second affordance, the method further including:

prior to detecting the sixth user input:

detecting a seventh user input selecting the second affordance; and

in response to detecting the seventh user input, displaying a video feed from a second camera of the client device, wherein the second camera is different from the first camera.

6. The method of claim **1**, further including:

in response to detecting the second user input, displaying progress of recording of the video clip in the second user interface.

7. The method of claim **1**, further including:

in response to detecting the third user input, displaying a representation of the video clip in the second user interface.

8. The method of claim **1**, further including:

in response to detecting the fourth user input, displaying the one or more visual media files as a live source in the second user interface, wherein the live source is treated identically to a video feed from a first camera of the client device.

9. The method of claim **8**, wherein the one or more visual media files include one or more images and displaying the one or more images as the live source includes animating the one or more images with effects.

10. The method of claim **8**, further including:

prior to detecting the sixth user input:

detecting a seventh user input to initiate recording of a third video clip from the one or more visual media files being displayed in the second user interface; and

detecting an eighth user input to stop recording of the third video clip.

11. The method of claim **1**, further including:

prior to detecting the sixth user input:

detecting a seventh user input to initiate recording of a third video clip; and

detecting a seventh user input to stop recording of the third video clip.

12. The method of claim **1**, further including:

displaying a sequence of representations of two or more distinct video clips at least including the first video clip and the second video clip.

13. The method of claim **12**, further including:

prior to detecting the sixth user input:

detecting a gesture dragging a respective representation in the sequence of representations from a first position in the sequence of representations to a second position in the sequence of representations; and,

in response to detecting the gesture, displaying the respective representation in the second position in the sequence of representations.

14. The method of claim **12**, further including:

prior to detecting the sixth user input:

detecting a gesture dragging a respective representation in the sequence of representations from a first position in the sequence of representations to a second position in the sequence of representations; and,

in response to detecting the gesture, ceasing to display the respective representation in the sequence of representations.

15. The method of claim **12**, further including:

prior to detecting the sixth user input:

detecting a gesture at a position in a respective representation in the sequence of representations; and,

in response to detecting the gesture:

splitting the respective representation into two distinct video clips based on the position; and

recording a third video clip starting from the position.

16. The method of claim **12**, further comprising:

prior to detecting the sixth user input:

detecting a gesture at a location corresponding to a respective representation in the sequence of representations;

in accordance with a determination that the gesture is in a first direction, increasing the frame rate of the video clip associated with the respective representation; and,

in accordance with a determination that the gesture is in a second direction substantially opposite to the first direction, decreasing the frame rate of the video clip associated with the respective representation.

17. The method of claim **1**, wherein the second user interface includes a plurality of audio and/or video effect affordances associated with a plurality of audio and/or video effects, the method further including:

after detecting the second user input and prior to detecting the third user input:

detecting a seventh user input selecting one of the plurality of audio and/or video effect affordances; and,

in response to detecting the seventh user input, applying the audio and/or video effect corresponding to the selected one of the plurality of audio and/or video effect affordances to the first video clip.

18. The method of claim **17**, further including:

after applying the audio and/or video effect corresponding to the selected one of the plurality of audio and/or video effect affordances to the first video clip, detecting an eight user input; and,

in response to detecting the eighth user input, varying one or more parameters associated with the audio and/or video effect being applied to the first video clip.

19. The method of claim **1**, wherein generating the media item comprises generating an interactive media item with one or more interactive audio and/or visual effects; and

wherein generating the first video clip includes, after detecting the third user input and prior to detecting the fourth user input:

detecting a seventh user input selecting one or more video effects and/or one or more audio effects, wherein a subsequent viewer of the interactive media item is able to interact with the video and/or audio associated with the interactive media item using the selected one or more video effects and/or one or more audio effects.

20. The method of claim **1**, further including:

in response to detecting the sixth user input, displaying a third user interface including one or more options for sharing the media item.

21. The method of claim **1**, wherein the client device is a portable electronic device with a touch screen display, and wherein the user inputs are touch inputs on the touch screen display.

22. A client device, comprising:

one or more processors; and

memory storing one or more programs to be executed by the one or more processors, the one or more programs comprising instructions for:

displaying a first user interface including a plurality of audio tracks;

detecting a first user input selecting one of the plurality of audio tracks;

in response to detecting the first user input, displaying a second user interface for obtaining one or more video clips;

generating a first video clip, the generating including:

detecting a second user input to initiate recording of the first video clip;

detecting a third user input to stop recording of the first video clip;

obtaining a second video clip, the obtaining including:

detecting a fourth user input selecting an affordance within the second user interface;

in response to detecting the fourth user input, displaying one or more visual media files; and

detecting a fifth user input selecting at least one of the one or more visual media files;

generating a media item based on the first and second video clips and the selected audio track, the generating including generating synchronization information for playing the selected audio track simultaneously with the first and second video clips;

detecting a sixth user input to publish the generated media item; and,

in response to detecting the sixth user input, uploading the media item to a server for publishing, the uploading including sending to the server information identifying the selected audio track, the video clip, and the synchronization information.

23. The client device of claim **22**, wherein the one or more programs comprise instructions for:

in response to detecting the first user input and prior to displaying the second user interface for recording a video clip, displaying an audio track portion selection user interface that enables the user of the client device to select a portion of the selected audio track; and

detecting a user input selecting a specified portion of the audio track.

24. The client device of claim **22**, wherein the information identifying the selected audio track includes information identifying a licensed source of the selected one of the plurality of audio tracks.

25. A non-transitory computer readable storage medium storing one or more programs, the one or more programs comprising instructions, which, when executed by a client device with one or more processors, cause the client device to:

display a first user interface including a plurality of audio tracks;

detect a first user input selecting one of the plurality of audio tracks;

in response to detecting the first user input, display a second user interface for obtaining one or more video clips;

generate a first video clip, the generating including:

detecting a second user input to initiate recording of the first video clip;

detecting a third user input to stop recording of the first video clip;

obtain a second video clip, the obtaining including:

detecting a fourth user input selecting an affordance within the second user interface;

in response to detecting the fourth user input, displaying one or more visual media files; and

detecting a fifth user input selecting at least one of the one or more visual media files;

generate the media item based on the first and second video clips and the selected audio track, the generating including generating synchronization information for playing the selected audio track simultaneously with the first and second video clips;

detect a sixth user input to publish the generated media item; and,

in response to detecting the sixth user input, upload the media item to a server for publishing, the uploading including sending to the server information identifying the selected audio track, the video clip, and the synchronization information.

26. The non-transitory computer readable storage medium of claim **25**, wherein the instructions cause the client device to:

in response to detecting the first user input and prior to displaying the second user interface for recording a video clip, displaying an audio track portion selection user interface that enables the user of the client device to select a portion of the selected audio track; and

detecting a user input selecting a specified portion of the audio track.

27. The non-transitory computer readable storage medium of claim **25**, wherein the information identifying the selected audio track includes information identifying a licensed source of the selected one of the plurality of audio tracks.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 9,207,844 B2
APPLICATION NO. : 14/608099
DATED : December 8, 2015
INVENTOR(S) : Snibbe et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the claims,

Claim 18, col. 28, line 60, please delete "eight user" and insert --eighth user--;

Claim 26, col. 30, line 49, please delete "clip, displaying an" and insert --clip, display an--;

Claim 26, col. 30, line 52, please delete "detecting a" and insert --detect a--.

Signed and Sealed this
Eighth Day of March, 2016

Michelle K. Lee

Michelle K. Lee
Director of the United States Patent and Trademark Office